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Annex to the Report of the
DI Planning and Development Task Force
15 May 1984

COMPENDIUM OF OFFICE SUMMAPIES, ADP APPLICATIONS
AND WORKING PAPERS

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DI Planning and Development Task Force	
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Annex to the the Report of the DI Planning and Development Task Force

15 May 1984

This annex provides documentation and additional information on the findings and recommendations of the Task Force Report. It is divided into three parts:

O Summaries of Office and staff ADP requirements and applications as derived from interviews with members of the Directorate.

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- O A Checklist of ADP Applications that were identified during the interviews.
- O Working papers which served to guide questions that were asked by the Task Force.

Office overviews are listed in alphabetical order by component code.

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OFFICE AND STAFF SUMMARIES
(Listed in Alphabetical Order by Component Code)

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10 May 1984

MEMORANDUM FOR THE RECORD

SUBJECT: Office of African and Latin American Analysis

I met with ALA analysts, managers, and ADP support specialists between April 17th and April 19th to get their views on their future computer needs. I was impressed by their keen interest in the subject and by the amount of thought they had devoted to it. I was also struck by their concern that we are falling behind in this area, and that too little is being done in the Directorate to meet the challenges ahead.

Some analysts, citing difficulties they have encountered with the present systems, seemed skeptical that we will be able to get our act together in time. But they were eager to press ahead. One person commented that we must not make the mistake of moving too slowly, but should take advantage of the momentum that will build rapidly as more people become familiar with the machines.

In the paragraphs below I have tried to capture the essence of the meetings I attended, which consisted of sessions with the Support Staff, political, economic, and military analysts, and SAFE users.

Sources and Requirements

We are concerned that the increase in intelligence collection will not be matched by a comparable increase in the number of people processing it. Ninety percent of the new information will not be seen. Much of our most important information, moreover, comes to us only in hard copy. We need to get more such sources into electronic form so we can merge it with what we get in SAFE. The CDS system seems to have trouble keeping up with our present, limited SAFE take, and we worry about its reliability in the future.

If the information flow increases as predicted, there will be a pressing need for a computerized monitoring system to help the PIs avoid missing important developments. We will need better ways of checking quickly to see whether new information actually indicates a change. We will need to be sure we have access to all NPIC reporting through SAFE.

The requirements process right now is so difficult that it is hard to get requirements out, except when you can take them directly to the DO. The ITC process has become more cumbersome. You can't task NSA at all. The system is so politicized as far as technical collection is concerned that it's doubtful computers can do much to help.

An ability to participate in the requirements process from the analyst's terminal would be helpful in many ways, but we would not want to lose direct contact with the collectors.

line as new s	m might allow us to revise required ituations arise, and to keep trans	ack of
requirements	that have already been levied.	A computerized
requirements	channel to DO desks	would be
particularly	helpful.	

-	We the	would	hope ectors	the	system	could	be	linked	more	directly	to	25 X
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-- Ideally, a computerized requirements system would allow analysts to find out quickly what requirements have been levied on a given subject, and the status of their own requirements. It might also include notices of intelligence potential issued by collectors.

Databases

We are confident that demand for information from outside databases will increase. It is hard, however, for most analysts to know what external databases have information of interest to them. Maybe we should have a database on databases. Another major difficulty is the diversity of protocols and languages required to work with the many different databases from which analysts could obtain valuable information. Perhaps an artificial intelligence system could be devised to make this easier.

Something like might help, but access will probably remain too difficult or time-consuming for many analysts. It would be helpful to have more direct access to NEXIS, DIALOG, and the New York Times databases.

If we could easily access these databases and pull them into our own file environment we could create databases that would relate more closely to our needs and be more accurate. We would like to be able to compare data from different databases to identify discrepancies and determine what figures are likely to be most accurate. We need formats within VM that would make this easier. Multiple-window terminals would facilitate data comparisons. We would also like easier and more direct access to other US Government data, such as at Treasury and Commerce.

Better access to OB databases is a must. DIA's hard-copy OB publications are too far out of date to use. The best way to get up-to-date information is to drive to Arlington Hall and beg.

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This requirement is particularly urgent in areas where we have too few analysts to build their own OB files. South America Division, for example, has only Where manpower does permit, it is preferable to store the data in ways that allow us to update it. Our approach to analyzing OB differs from DIA's,

-- Ideally, an OB database would be linked to a graphics package that would show unit, installation, and equipment locations.

Whether more analysts will take the trouble to set up and maintain their own databases will depend on how easy this is to do. Some have tried, but have become frustrated by the complexities. We need much more training and hand-holding.

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Word Processing

The availability of improved word processing capabilities to a much larger number of people is one of our most pressing needs. We have a number of word processing options in VM, none of which are as good as some of the commercially available products used with PCs. Internetted PCs would provide a more flexible word-processing situation.

-- Lack of compatibility among word processors is a major problem. We sometimes find ourselves working on joint projects with other offices where different systems are in use.

We could make better use of what we have if the system allowed us to process our drafts and send them to CPAS electronically. As it is, we have to transcribe our current intelligence items on the NBI and send a paper copy upstairs. Longer papers are also sent to CPAS on paper, even though the graphics are transmitted through VM. The amount of time spent processing typescripts is incredible.

An editing system should be developed that would simulate editorial markings, so the author would have no difficulty identifying proposed changes in his text. In many cases this would eliminate the need to print a draft before editing it. We should also be able to coordinate papers electronically—including with the DO.

Analytical Tools

ALA is looking into the possibility of using PCs to enhance its ADP capabilities more quickly. There is a large, pent-up demand for simple applications software that would allow us to do our calculations and assessments more quickly. A lot of commercially available software for economic research—database management, spreadsheets, etc.—could be used right now. Somebody should also look into what might be available for political and military analysts. ALA has a contract proposal pending for outside advice on applications.

-- Computer modeling has been done for years using contractors and batch processing. With terminals and the right software we could run our own simulations. To do so, however, we will have to be able to develop better "measures of effectiveness."

Training, which is not adequate now, will become even more important as additional analysts get terminals. Most analysts are not qualified to use the programs already available. There is too much divergence between computer professionals and analysts. This gap must be bridged and the systems made more responsive to analytical requirements. Because of manpower and facilities constraints, the DI should develop interactive, computerized training programs that would allow analysts to proceed at their own pace and without leaving their desks. We should make use of those in our branches who are proficient in using computers to train those who are not.

Even with better training, analysts are still going to need in-house assistance such as that provided by ALA's Support Staff. Those giving technical assistance must be both ADP-qualified and either have experience as analysts or a thorough understanding of what analysts do. In database work they need to know enough about substance to recognize whether the output makes sense.

Terminals with multiple window and graphics capabilities would be useful throughout the entire process, from the sorting and reading of incoming mail through the final stages of production.

Color graphics and a map display capability would allow kinds of analysis that are difficult with present equipment. In a crisis 25X1 situation a multicolor display would allow the analyst to see changes over time. By plotting data available and using different colored overlays to represent different time periods, for example, we could monitor unit movements. Similar techniques can be used to follow ship movements.

Hard-copy documents, which we use extensively, pose a special 25X1 problem. Lengthy attachments to DO reports, for example, are often not included in the version of the report that reaches us. We have to request them. It would be much easier if we could review images of them on our terminals first. Ideally, these images should be convertible to characters so we could do calculations and merge data with our other files.

A system of compartmentation should be developed if that is what is required to make our SAFE take more comprehensive. SAFE should, for example, include all DO reporting.

Better reliability is essential. We cannot afford to go into a paperless environment with downtime like we are now experiencing in SAFE. There must be enough redundancy to eliminate this problem, at least in crisis situations. We need 100% reliability; 95% is not good enough.

Production and Dissemination

As mentioned above, the entire production process from the initial draft to the print shop should be electronic. If this were the case, a fringe benefit would be easier and more accurate production reporting. The desired information could be extracted at the time documents were sent electronically to CPAS. Only a few entries, such as hours spent, would be required to supplement the information normally provided when documents are sent forward.

In the long run, we think many of our products will be disseminated electronically. Perhaps the DESIST system could be expanded and used for other dissemination. Computerized dissemination might also prompt more feedback from the customer. There are obviously security problems to overcome. What we need is a user-friendly Office of Security.

29 May 1984

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MEMORANDUM FOR THE RECORD

SUBJECT: CPAS Overview

CPAS has two principal functions: current intelligence support and publications support. Current support includes managing a host of functions associated with the Operations Center, responsibility for the President's Daily Brief (PDB), briefing policymakers on the PDB and production of the National Intelligence Daily (NID). Publications support involves preparing text for printing and providing a wide range of graphic, video and presentational support for all finished intelligence.

The Operations Center

The Operations Center carries out many of the functions of the DI during non-business hours—about 60 percent of the hours in a week. During normal business hours the Operations Center is responsible for identifying cables relevant to the day's NID and PDB publications. Watch officers must know articles that are to be published in these rports and alert editors and analysts in the Offices of any changes.

The Operations Center has also provided day-to-day support to the DCI. This is less the case today, but the Center still has responsibility for tracking all movements of the DCI and for alerting him whenever an important development occurs.

The Alerting Function

The primary function of the Operations Center is to alert policymakers and Agency management of time-urgent events. Center Watch Officers scan electrical cables and wire service reports per day as part of this mission. Although the Agency receives per day, the Center uses a profile in the Cable Dissemination System to weed out technical and operational traffic (some DO traffic is reviewed separately). If a crisis develops, the Operations Center will alert the DCI, Deputy Directors and substantive analysts. Alerting lists vary according to the substantive problem and region of the world. Problems sometime occur in trying to reach people at home--they are out of the house or no one answers. The Operations Center could use an alert list of phone numbers coupled to an automated dialing system. If no answer occurred, the electronic system

could continue to dial until an answer was received and an electronic message could then be relayed. Another problem is the absence of secure telephone lines to homes of most Agency employees. The Operations Center must talk around the substantive problem to alert substantive analysts.

Database Requirements

Among the database requirements and candidates for the Operations Center, the most important is a file of CIA finished The Operations Center often receives time-urgent requests from the White House Situation Room for a copy of a In one case, Office directors were called in to search their safes and office files for hard copies of finished publications in support of the Vice President's trip to China. At a minimum, direct access would be useful. A database would also be helpful. The most common kind of queries to which the Operations Center must respond are requests for At present, the Operations Center must relay such a request to the OCR duty officer. The OCR duty officer then calls the officer in OCR that has substantive responsibility for During non-business hours, the officer would travel to Headquarters, access the vault, pull the file and provide it to the Operations Center. This process typically takes two to three hours. A more timely retrieval system would be useful. A third source of desired information (which could be satisfied via SAFE) are recent cables disseminated over the last 90 to 120 days.

Inter-Directorate Relations

Each Directorate maintains an operation center of one type or another.

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The DS&T maintains an operations center	
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There is almost no	
elationship between the DI Operations Center and the DS&T enter.	2
The FRIC Wire Poom agts as an emember of	
The FBIS Wire Room acts as an operations center for that ffice. It maintains a direct phone line to the DI Operations	
enter and contacts take place on a regular basis - ppro will	
lert the Operations Center of an incoming broadcast on, say, a ajor leadership speech prior to putting it out on the FBIS	
ire. Unly about 10 percent of the material received by FRIC	
ctually is disseminated via the FBIS wire service. All of the	
nis reason SAFE would be of extraordinary value to the	
perations Center if it could be received on a timely (5 minute) asis.	
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In the DDA, the Office of Communications is building an perations center on the first floor.	
The second secon	_ 2
There is no established relationship between this	_ 2
acility and the Operations Center in the DI because the OC	

facility is not yet in operation.

Current Intelligence Highlights

The Current Intelligence Highlights (CIH) is published by the Operations Center at 0600 hours, 1200 and 1700 hours. There are about 100 customers inside the building (including morning briefers) for the morning edition and about 20 customers for each of the later editions. The CIH contains "lower threshold" cables not referenced in the NID or PDB. PDB and NID briefers review these to update their presentations to policymakers. The CIH also flags to DI management articles of interest. The DDI reads the CIH and circles those items which should be addressed in the next day's PDB or NID.

Modernization of the Operations Center

good that the system will be fully implemented.

Renovation plans imply a functional change in the relationship between the Operations Center on the seventh floor and the Crisis Management Facility on the sixth floor. Under the current plan, the Operations Center will have the responsibility not only for alerting but also for supporting crises through conferencing facilities in adjacent rooms. These facilities will be part of the White House MEDUSA system, which will support full video TV conferencing as well as secure access to data, voice and graphic material. Renovation plans also call for a special console from which displays of TV news, FBIS reporting and other video information can be controlled for display on large screens in front of the Watch Officers.

MEDUSA will connect all intelligence agencies with the NSC Crisis Management Facility located in the Executive Office Building. The system will use fiber optics to support six channels of information. Cryptographic equipment will be used to ensure security between nodes. While the White House will support the external communications lines, it is up to individual agencies to install equipment for its own conferencing facility.

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The cost for the MEDUSA equipment amounts to about

dollars in FY84. In addition, CPAS has set aside
to upgrade hardware and software in the Operations Center
and some for rebuilding the Operations Center.
Funding for MEDUSA will be provided by the Agency rather than the
DI. IOC is estimated to be October 1985, but this date is
slipping. Equipment is scheduled to arrive in March 1985.
MEDUSA contracts will be signed this year and the chances are

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If MEDUSA is implemented, it will mean a major shift in the procedures of the Operations Center. At this time NIDs are electronically disseminated to the NSC Crisis Management Facility (CMF) via the White House Situation Room. Many other kinds of information could be transmitted via the MEDUSA system, however. How this will be done remains to be determined. The potential exists, however, for substantial information to be passed in graphic/video as well as in digital/textual form. In effect, MEDUSA could act as a "substantive switch" to pass information from the DI to the White House as well as to other agencies.

Security implications for MEDUSA are complex. To pass the current cable NID to the Crisis Management Facility requires several steps: the electronic version is printed in hardcopy by CPAS, then passed to the Cable Secretariat via mailing tube. The Cable Secretariat then scans the hard copy with an optical character reader and electronically transmits it to the CMF. Dropping the electronic version to a hard copy is necessary to ensure that written authorizations for release are available to the Cable Secretariat.

meeting. Other articles arrive between one and five in the afternoon. Representatives from Cartographics group attend the meeting to be alerted to graphics, maps or charts that will be required.

While these meetings are under way, analysts are already drafting candidate articles. They coordinate their articles within the branches, xerox 10 or 12 copies and distribute these within the building by hand and to external agencies via Analysts also advise Cartographics of any map or Washfax. graphic material that is needed.

Coordination is

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nearly simultaneous: the Office Director, as well as substantive analysts in the DI, DO and at DIA and State coordinate and

review at about the same time. While all this is going on, the NID and PDB editors are modifying the piece. A coordinated paper is turned in by 1700 hours to the editors for further work.

All the articles which are submitted for the PDB and NID are edited down to a very short length. This does not mean that the PDB and NID staffs want analysts to submit short articles. The staff finds the details that are provided in longer articles help them edit the papers in a more meaningful way. This context is also useful for morning briefers who must be in a position to answer questions posed by policymakers on PDB articles. Face-to-face contact between the analyst and PDB staff is another mechanism for gaining perspective on an article. The staff is able to pose a wide range of questions to the substantive analyst in order to gain additional background. The NID staff does not require this same level of contact because no personal deliveries or briefings of the NID are made. NID articles are also somewhat longer because each article must stand by itself.

During the day the Operations Center is responsible for identifying cables relevant to the day's NID and PDB publications. Watch Officers must know the topics of articles that are to be published in these reports and alert editors to any changes that have occurred. The PDB staff could use more timely access to cable traffic reviewed by the Operations Center. Indeed, it would like to get this material as quickly as the Operations Center.

The CPAS Review Panel selects most PDB articles from the NID. While the NID is fully coordinated, the PDB is not. Occasionally, disagreements with other agencies are noted in the PDB. The CPAS Panel reviews the PDB and NID between 1700 and 1830. Articles are then forwarded to the ADDI (for the NID) and to the DDI (for the PDB) for review. The DDI sometimes meets with the CPAS Panel for major changes or comments.

Articles are keyed into a Mini-Edit workstation. Edit workstation is a stand-alone workstation which is owned by the Office of Logistics and located in the CPAS production As the CPAS Panel makes changes to draft articles, a secretary immediately keys in changes. Sometimes a member of the Panel reviews the draft at the Mini-Edit terminal and makes changes directly. There are four terminals in the production When all changes have been made, the articles are transferred from the Mini-Edit terminal to the Office of Logistic's ETECS composing system via a telphone modem. formal publication process can then begin. The text is reviewed in detail, graphics are made up and drafts are passed to journeymen composers by about 2300 hours. Changes are still possible after the articles go to composing, but these changes are limited to a few word or sentence changes. Paragraph changes can cause delays because of the need to recompose a page. publications are ready for printing by 0200 hours (for the NID) and 0400 hours (for the PDB). About 90 minutes are required for The publications must be ready for delivery by 0600 hours.



Archiving the NID and PDB

The PDB is archived on the Mini-Edit system. CPAS has obtained from OL an 80 Megabyte disk pack for storing one year's worth of PDB articles. The articles are organized on a regional basis. This enables the PDB staff to determine what was published on a particular country yesterday, last week or last year. The Mini-Edit system is not an archive system, however, and breaking up the PDB into a country-by-country file takes some time. For this reason, CPAS does not archive the NID. Agencies that receive the NID have archived this periodical, however. SAC, for example, has a 10-year history of NID articles in a computer file.

The CPAS Publications Group*

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The philosophy of the CPAS Publications Group is to ensure that publications are clear and readable and that they possess a corporate image of accuracy and quality. The present publication system in use in CPAS is supported by systems developed for the graphic arts industry. This industry has placed great stress on high quality products. It has been conservative, however, in terms of developing integrated systems that can connect with the drafting and review process. In contrast, the typescript memo production process has typically been supported by computer and word processing companies which have not had a background in graphic arts. This is a much more dynamic area but has not achieved the quality standards of the graphic arts industry.

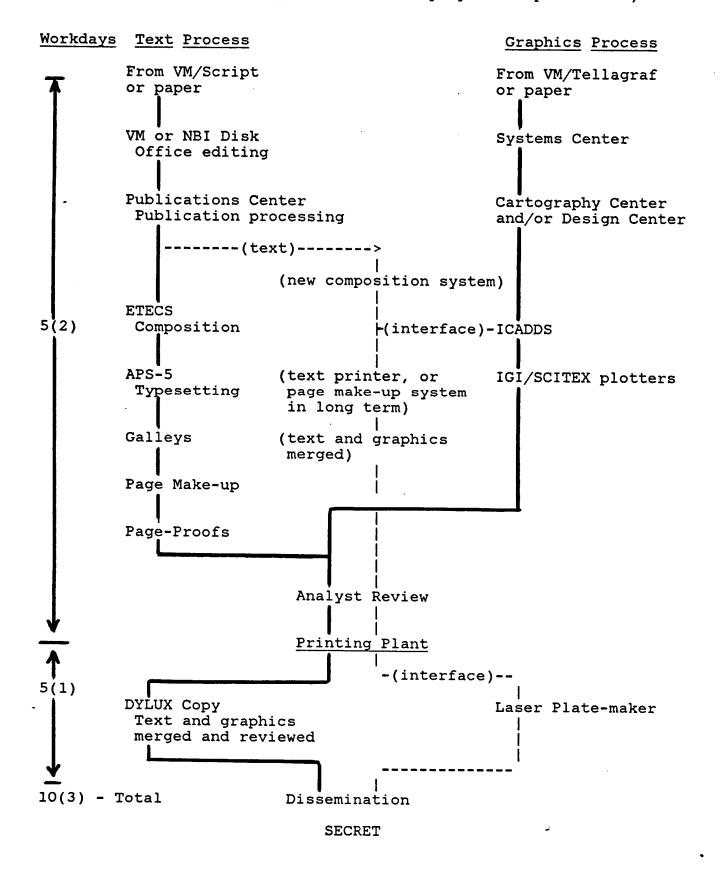
Publications Center

About 98% of all drafts coming into the Publications Center arrive on NBI disks (see chart). The only exceptions are from OSWR, which uses Script. One branch in OGI uses EZPUB to format its finished drafts. It would be preferable if all offices would provide drafts to the Publication Center via VM (either in Script or EZPUB). When an NBI disk arrives, the draft is first reviewed

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Chart MODERNIZATION OF PUBLICATIONS PROCESS IN CPAS (Items and numbers in parentheses are proposed improvements)



by Publication Center editors. The editors look for style, spelling and punctuation problems. Most of the editing is for the sake of clarity. Only about 5% of the changes are substantive.

The Publications Center uses the Electronic mext Editing Composition System (ETECS). ETECS is a file management and composing system manufactured by the Atex Corporation. Atex is owned by Kodak and is considered to be the "IBM" of automated publishing. ETECS has the capability to produce multi-column text in a variety of fonts with proportional spacing. Proportional spacing is used in tables to compress a large amount of data into a very small area. At present no computer-based system approaches ETECS in terms of composition quality.

The draft on the NBI disk is passed to ETECS via VM from a special communicating NBI. Once the draft arrives in ETECS, it is there to stay. There is no convenient mechanism for retrieving text from ETECS and sending it back to the VM system. This is because of the proprietary nature of the software used in ETECS and the complex nature of the page-layout commands that are added to the draft in ETECS.

Editorial changes in the draft are keyed into ETECS by clericals using Mini-Edit or Atex-8000 terminals. Galleys are created by journeymen composers. The galleys are printed by a photographic process using the APS-5 film developer located on the ground floor in the Office of Logistics. The galley is electronically transferred by the composers from ETECS to the APS-5 via a function key on the Atex-8000 terminal. The product of the APS-5 is a high quality galley print which is tubed back to the Publications Center for page make-up.

Page make-up can be done on the Atex-8000 terminal or manually, where pieces of the galley are stripped onto plastic sheets, with appropriate spaces for graphics. This involves adding page numbers, classification headers and footers and so forth. While the automatic composing process on the Atex-8000 terminal can be faster, it does not easily permit ad hoc changes.

Once page make-up is complete, a Xerox copy is made for proofing. Page proofs frequently lack the graphs and charts that would accompany the text, however. This is because graphs and charts generally cannot be created as soon as the page proofs can be composed. As a result, analysts review drafts at the page proof stage without seeing how graphs would look in context.

Final changes are made after the page proofs have been reviewed and the page proofs and graphics are then sent to the printing plant where they are physically merged and photographed. DYLUX copies are made prior to the actual printing process. The DYLUX stage is the last stage prior to actual printing.

The Publications Center can produce a finished publication in an average of ten working days from the time an NBI disk arrives to the time a finished publication is printed and ready for dissemination. For some publications, such as the IEEW, the average time is five working days. About four and one-half days of the ten-day average process time is spent at the printing plant. Of this amount, about one day is used to create the DYLUX copy, one day is required by the DI analyst to proof the copy and two days are required to print it.

Modernization of the Publications Process

The Publications Center would like to reduce total processing time from an average of 10 days to three days minimum. It could do this by going to a faster page make-up system that would eliminate the manual merger of text and graphics and the DYLUX step. One solution that is being considered is the use of Cartography's ICADDS graphics terminal to merge and display text and graphics in softcopy form. The combined text and graphic softcopy page could be transferred to hardcopy via some high quality output device. Analysts could then review the text and graphics in context and the final approved version could be sent electronically to the printing plant in one step. At the printing plant the digital stream could be directly transferred to a laser platemaker.

At the present time two different types of output devices could be used to transfer the softcopy image from the ICADDS terminal to hardcopy: the IGI high-speed plotter for high quality line work and textual material; the Scitex laser/raster plotter for high quality half-tone color products. While either plotter is suitable for creating text, both would be very slow if many pages were required.* A possible solution would be to print only those pages of text which contain graphics and use a high speed laser printer or OL's APS-5 printer for pages that only contain text. An interface between ICADDS and the laser printer or the APS-5 would be necessary for this concept to work.

To carry out these plans, CPAS must build interfaces between its graphics equipment and systems run by the Office of Logistics. An interface already exists between the CPAS IGI plotter and the CPAS Scitex plotter. It is a neutral language interface that could serve as a standard interface for other equipment or systems, such as between the ICADD system and OL's laser platemaker. CPAS must also acquire a suitable word processor/composition software system to run on the Intergraph system. In the long term, CPAS would like to move toward an automated page make-up system that integrates text and graphics.

*The Scitex Super-scanner can scan any hardcopy image at resolutions of one mil, two mils, four mils or eight mils. (One mil equals one one-thousandth of an inch.) A 30 \times 40 inch image could be scanned to a resolution of four mils in about one hour.

An interface between the ICADDS terminal and the Genigraphics system would also be desirable. This interface would make it possible to use the film recorder of the Genigraphics device to produce charts and viewgraphs that are viewed and produced on ICADDS.

Video Preduction in the Cartographics Group

The TV Center in the Cartographics Group has recently been renovated. A studio-quality (one-inch video tape) facility has been established on the first floor to support a wide variety of production. No live TV studio is available but narration and graphics can be filmed at the Center. CPAS is responsible for production of videos while OCR is responsible for recording TV off the air and for monitoring and collecting special television broadcasts. OCR controls the satellite dish in the North parking lot. The Agency is apparently precluded from monitoring broadcasts for which we do not pay. This limits the kind of information which can be received via the dish. CPAS would like a wide range of programs piped into its TV Center, however, to support its alerting and DI support functions.

In addition to the video capabilities in CPAS and OCR, the Office of Logistics is responsible for duplication of tapes and also has a video taping capability (3/4-inch). The Office of Training and Education in the DDA also has responsibilities for taping training courses and has its own video facility (3/4-inch). Finally, FBIS plans to collect TV programs broadcast overseas for translation and dissemination.

There apparently is great potential for video to convev intelligence information.

If an analyst desires to produce a video, he first approaches CPAS with a conceptual approach. CPAS helps the analyst outline a script, giving due consideration for the audience. CPAS may send an individual to collect footage from the Visnews archives or may turn to the considerable holdings of OCR tapes. This service provides news footage to a number of networks and is reasonably cheap service to use. A third source of information is Vanderbilt University which maintains a Catalog of newsworthy programs.

The current video production system could be aided considerably by a broader understanding of the potential of video productions within the DI and by a greater awareness of the material that could be used in video productions. To solve this problem may require changes in the process by which textual summaries of available video footage is provided to analysts. At the present time computer printouts of news gists are provided by OCR to the regional offices. Unless analysts specify otherwise, some of this material is automatically erased. This is not due to storage constraints but to judgments about the news worthiness

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of the item. Frequently analysts do not have a particular use in mind for news gists when they cross their desks. As issues develop, however, analysts may wish to refer back to these gists.

Other Comments

The DDI will need a central maintenance point for the growing amount of electronic equipment in CPAS.

The current Washfax system appears to be functioning well and within its intended capacity. The need for a two-tier transmission system may surface soon, however. Such a system will ensure that longer publications are made available or can be transmitted via the system in addition to shorter, time-urgent memos in support of NID and PDBs.

23 May 1984

MEMORANDUM FOR THE RECORD

SUBJECT: Modernization Views of Collection Requirements and Evaluation Staff (CRES) Personnel

Mission

The Collection Requirements and Evaluation Staff (CRES) comprises six groups and the Imagery Tasking Center which is a subcomponent of the Imagery Group. The groups are the Imagery Group, the SIGINT Group, the Requirements and Services Group, the Advanced Systems Planning Group, the SEEK Analysis Group, and the Foreign Intelligence Capabilities Group. As a staff element of the Office of the Deputy Director for Intelligence, CRES has a mixed bag of responsibilities. Its major responsibilities are (1) to assist the production offices in developing intelligence information requirements and collection guidance and to evaluate collection response to these requirements, (2) to evaluate the utility of present and proposed major collection systems and programs, (3) to 25X1 develop, represent, and support CIA positions on the various collection committees and (4) to represent the DDI on collection and evaluations matters with NFIB agencies

Collection Management

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CRES is the DDI's principal collection requirements agent and represents the DDI and CIA in the Community on most collection matters. This is a highly competitive arena, requiring an aggressive, continuing effort to insure that our collection needs are met satisfactorily. In addition, the collection environment has become even more competitive recently with increased emphasis in the Community on tactical uses of overhead national assets, especially 25X1 imagery assets. CRES expends a great deal of effort in monitoring new technology in the Community and in developing advanced collection and exploitation requirements.

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The scheduled improvements in collection capabilities, and in collection management in the Community, will make the preparation and submission of requirements a more complex and time-sensitive process. To meet such needs, CRES is planning to build a multisource, automated management system and requirements database for use by tasking officers and analysts. Data available at various points in the Community will be brought into CRES and processed to provide timely requirements feedback to analysts and information on collection opportunities. This also will serve to involve analysts more directly in collection and tend to centralize collection matters at a single point of contact, simplifying the requirements process for analysts. While interactive, synergistic use of assets is realistically not obtainable any time in the foreseeable future in the Community, it is attainable at the Agency level where precise objectives can be formulated and the Community mechanisms pulsed in the most organized, effective manner possible by highly trained, experienced, and knowledgeable tasking officers.

Databases

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CRES maintains several databases, the NEDS, REQUINT, and some administrative databases on when It uses a number of other 25X1 databases, such as CAMS, RECON. COINS. 25X1 CRES sees a future need for relatively small, specialized databases; for example, databases of group files, committee minutes, 25X1 control of access to special material, administrative Its FICG also has a current need for SAFE access. matters, etc. 25X1 The largest, most complex CRES database probably will be that

supporting an improved DI requirements management system. optical character reader will be needed to input certain hardcopy material into group project files.

Communications

CRES functions could be facilitated significantly by easy access to certain Community databases, although in general the timelines are not urgent. CRES management feels that the Staff will make rather extensive use of VM and AIM as soon as the terminals are available; limited use is now made of these capabilities. was expressed that most of the paperwork now associated with requirements should be automated, so the need for paper would almost disappear. Electronic coordination of drafts also would significantly benefit CRES. A great deal of draft coordination is often necessary on such issues as foreign disclosure, risk assessment, counterintelligence appraisal, development of DI-wide and Agency-wide positions on Community matters, etc.

Word Processors

Currently, the majority of CRES uses NBIs. CRES management feels that interconnected word processing capability would enhance Staff productivity, speed up operations, and be embraced enthusiastically.

Analytic and Methodological Support

FICG is a research production organization and is interested, therefore, in development of methodologies that would afford better understanding of Soviet capabilities and of potential Soviet reaction to US initiatives. ASPG and SG are in the business of analyzing and describing the utility of current and future collection systems and system mixes. While some contractual effort is going on in this area, the problem is difficult. Additional work will be required before totally acceptable data will be produced on which to base DI positions on collection system use and development. There also are certain methodological "packages" that will need to be imbedded in the proposed requirements management and tasking system to aid in target selection and evaluation of collection results.

Presentation and Dissemination

FICG research products would benefit from the same improved production and dissemination capabilities that the Offices have identified to meet their needs. Electronic coordination and dissemination of DI and CIA position papers, responses to committee business, and documents requiring official coordination would be valuable. In this regard, "electronic signature", mentioned elsewhere in the Modernization Program documentation, would be needed.

Management Support

CRES does have a need for feedback on various aspects of the requirements processes to judge such things as effectiveness of sources, status of collection satisfaction, collection shortfalls and gaps, etc., so that it can take corrective action or, perhaps, obtain better information for analysts. This feedback should, of course, pose as minor a burden as possible on analysts if the necessary information cannot be gleaned from routine data flows (e.g., CAMS data). Availability on terminals of certain other routine management data, such as the personnel data, would be helpful.

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3 May 1984

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MEMORANDUM FOR THE RECORD

SUBJECT: Views on DI ADP Modernization by the Office of European Analysis and the Office of East Asian Analysis

PURPOSE OF SURVEY

The purpose of this survey was to determine the functional duties of the DI analyst now and anticipated that can be made more efficient with ADP support.

PARTICIPANTS

During a two-week period, I talked with persons in 13 interviews that covered all divisions and staffs of EURA and OEA. The interviewees included division and branch management, analysts from all disciplines, production officers and secretaries.

ISSUES

I. MANAGING REQUIREMENTS

A. Problem

requirements ex collection.			

25X1 In effect, it would create a much closer working relationship between the collector and the analyst-25X1 ACCESS TO OVERT FOREIGN SOURCES

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A. Problem

The Agency has hardly moved beyond the capability to service the requirements as they were established in the 1950s. Most of the unclassified foreign information collected is by acquisition of written material, through FBIS collection and translation, or periodicals according to some vague understanding of what the analyst needs. The resources are wholly inadequate for the analyst that must know and evaluate developments in near-real time.

Proposed Solution

Direct TV and Shortwave radio reception: During fast breaking situations the analyst should be able to tune into foreign TV and radio coverage. He should have the capability to receive and record on a regular basis TV news and political debate shows.

Benefits: Actually watching the TV coverage is significantly preferable to reading a transcript of broadcasts. The analyst can better evaluate strengths and weaknesses of political candidates, measure the power of demonstrations and sense the mood of the people during

special developments with voice and visual aids rather than be limited to the written word.	
2. Direct Access to Foreign Databases and News Services:	
Europe is awash with computer searchable and accessible data banks of all types, including economic and political data.	
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All the analysts want the capability	25X1
to access these sources from their workstations.	

Benefits: Other specialized services would give the analyst a much wider access to text searchable data, specialized economic data and lists of bibliographies, access to foreign data bases, particularly specialized ones should offer a much broader array of information to the analyst and in a much more useable form.

III. PROCESSING AND ANALYSIS

A. Problem

The Agency computer system--VM--is characterized as a very powerful tool, it is just not useable by most mortals. The computer manuals are incomprehensible and far too complicated for most people to take the time to learn. An example is the four-inch thick manual for TELLAGRAF. Very few analysts can use it or are willing to learn to use it. There are no guides to what the computer can do for the analyst, much less an easy users guide. Databases have no common language; methodological packages are available by word-of-mouth. If the analyst that constructed the database dies, the database is sure to shortly follow. In short, the system is for computer experts, not analysts.

B. Proposed Solutions

- l. Personal Computers connected with VM: The current system which operates with Delta Data terminals and a single mainframe computer center is too inflexible to satisfy the current analytic needs or to allow the analyst to keep up with state-of-the-art technological developments of analytic tools. The commercial software market is passing by the Agency. ODP should either allow the use of a number of commercially available PCs or make the mainframe accept various PC languages. Only in that way can the analyst tailor his support capabilities to his specific needs and do it with considerable ease. The PCs should also be detachable from the workstation and be transferable at a central depot in the Agency for those who want to switch capabilities or who change locations.
- 2. <u>Simplified Software Packages</u>: Software available with PCs will satisfy some of the needs for being able to do graphics in color and to conduct spreadsheet analysis. Other simplifications are necessary, however, to make the computer a tool rather than a chore. Some capabilities emphasized are:
 - A map library that an analyst can draw up and annotate for analytical uses. This would be particularly useful when following military developments.
 - O Common languages to access all data banks and methodological packages in the system. This language should be easily used and compatible with a common language developed for external data banks. (This software capability is beyond the current state-of-the-art; it is being worked by commercial interest, however, and rather than develop our own, we should wait until a language is commercially available to assure that it is compatible with outside languages).
 - O An index of all data banks and methodological packages in the computer should be developed along with a very simple menu for accessing and using the packages.

- 3. <u>Word Processors</u>: No one is satisfied with the word processing capabilities. The most frequent request is to have a system built into the computer that is as simple as the NBI; there should be only one system, not several, so everyone including the secretaries are working with the same WP. Alternatively, at least an interface language should be built that will convert any WP program to any other program. Another suggestion is that the DI style manual be built into the computer WP to function much the same as the current misspelled words program works.
- 4. Training: A completely self-taught computer/TV program for all computer systems, methodological packages, common data bases, typing, WP, etc. should be developed. It should be computer-based and very easy to learn.

WORKSTATION

A workstation should be of modular design so a terminal can be plugged in and removed for repair or adapted to a different The computer should be a PC coupled with the VM. The PC is necessary to reduce the load on the mainframe and to give the analyst confidence that a computer capability is there when he If not, he will continue to maintain hardcopy files of needs it. important papers and will need a stand-alone WP for emergencies. There should only be one terminal at the desk; all functions should be done from this terminal including--and especially-accessing external data banks as well as the VM system. workstation should have a TV capability, ideally as part of the computer screen. It should have a split-screen capability for taking notes, writing while reviewing a document and for editing or reviewing production. Each branch should have quality printers, including a printing capability for color graphics. order to save space and to allow quicker, more efficient telephone dialing, the phone should be a part of the computer with a preselected dialing capability. The terminal should be capable of interfacing and communicating with other Agencies' data banks. The PC should have hard disk storage for the construction of an analyst's own files, independent of the VM. It should have a light pencil--or mouse--for editing and notetaking.

9 May 1984

MEMORANDUM FOR THE RECORD

SUBJECT: Office of Near Eastern and South Asian Analysis Views on ADP Modernization

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Between 10 and 16 April I interviewed groups of NESA secretaries, IAs, analysts, and managers. The with whom I talked constituted a crossection of NESA personnel. They were grouped to represent interests common to all NESA components, as well as those more particularly relevant to political, economic, and military analysis and crisis support.

In addition to the specific subjects discussed below, several themes seemed to recur throughout the interviews:

- -- A positive view of ADP potential, but frustration with the slow pace of its introduction, with the complexity of the systems that are available, and with the impenetrable jargon in which most instruction manuals are written.
- -- A concern that we are at the mercy of remote staffs whose priorities differ from our own.
- -- A conviction that life would be a lot easier with better training and training aids, and with more specialists within the office who could help set up ADP programs, troubleshoot, and provide on-the-job training.

The sections that follow reflect the views of those interviewed as they considered specific elements of the analytical and production process.

Sources and Requirements

NESA uses virtually the whole range of intelligence and open sources—with the mix varying a bit from one region or discipline to another. A common characteristic is that we never have enough reliable information. Economists, for example, cannot use official statistics from most NESA countries without major allowances for deliberate distortions and plain incompetence. Media sources tend to be too controlled or too irresponsible. Human sources lie.

The quality of information is not likely to improve even with geometric increases in volume. The general expectation, in fact, is that such an explosion will make it harder to find the nuggets. A priority NESA requirement will be to find better ways to pre-sort, index, file, and retrieve relevant materials.

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NESA analysts tend to take their requirements directly collecting organizations if possible, because they find the collectors more responsive to this first-hand involvement.	to	the

Databases

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NESA analysts have not made extensive use of external databases, other than those we are able to search with the help of library personnel. Some would like to make greater use of these resources, but know little about what is available or how to get at it. Being able to do text searches of the New York Times from our work stations would be highly useful, for example, as would the ability to search several years of wire service files. We would like to be able to do our own searches of bibliographic data bases such as DIALOG. We would welcome an eletronic "card catalogue" of the library's holdings.

Analysts would like to be able to do a lot more database building on their own. For example:

- -- While doing research in books and other hard-copy sources, it would be quite useful to be able to write electronic "notecards" to a file that could be both indexed and searched. This would facilitate the project at hand and also be available for future use when we address the same or a similar topic.
- -- In a broader sense, it would be better to store information than documents. In many cases only relatively small portions of a cable are of any lasting interest. We need better ways of extracting that material and perhaps combining it with material from other sources in a body of pre-processed information that can be rapidly recovered and used for further analysis and reporting. Policymakers will be served by their own speedier communications in the future, and we must be able to provide quick background and analysis.

- -- Such a system might also accommodate selected extracts from non-electronic sources--entered manually if necessary but optical character readers would be a big help.
- -- We should be able to do text searches of all such databases. All DI finished intelligence production should be stored electronically and available for search.

Better information on the availability of data internal bases and on procedures for accessing them would enable analysts to profit from work already done elsewhere in the building. This will be even more the case in the future as analysts develop new databases.

The exclusion of files and databases is major nandicap, and the directorate should try to negotiate a solution to this problem. We would be content with separate, encrypted files—even a separate terminal if necessary—but when high-level customers ask for an exhaustive, all—source study of a question we do not feel comfortable about the possibility of missing pertinent clandestine reporting.

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Some analysts expressed concern about the lack of time and of encouragement by management to build databases. The front-end workload is quite extensive, even though databases may save work in the long run. They nonetheless believe that analysts will be building more databases in the future. NOMAD is a good tool for doing so, but it is doubtful that many analysts will be able to free up the time or develop the expertise to set up new databases on their own. They will continue to need the help of ADP specialists assigned to NESA.

As databases grow in size and sophistication, analysts should be able to work out methodologies that are now difficult or impossible, such as identifying patterns of political and diplomatic behavior, tracing associations among individuals over a period of time, looking for correlations between voting patterns at the local and national levels, etc. Many of these techniques require the ability to do text searches.

One problem we need to overcome, given our limited analytical resources, is that of ensuring that we have on file an adequate body of information on countries that are not normally of much intelligence interest. We cannot ignore these countries, but we cannot spend much time on them. In such cases we need less laborintensive ways to screen mail on these countries and put it into databases or files—perhaps with the help of an IA—so it can be speedily recovered if the account suddenly gets hot.

Analytical Tools and Word Processing

Word processors have become indispensable when deadlines are short. We are frequently called upon to produce talking points for the DCI and other key Agency officials within an hour or two. We

-3-SECRET would never make it if we did not draft the texts on the NBI so that changes ordered in the review process could be entered with little delay.

With the arrival of SAFE terminals, we need a word-processing system at least as good as the NBI. HBWP is a step forward, although it can be balky, clumsy, and prone to crashes. It needs work. Adding EZPUB features would be a boon. The main problem, however, is training and support. There are lots of features that would be handy, but it is hard for a busy analyst to learn how to use them. A capability to produce documents 132 characters wide would be valuable for some research papers. There is an urgent requirement for more printers.

But we really should go beyond simple word processing. We need to be able to incorporate graphics, especially maps, in the typescripts and situation reports we issue. These graphics can be in black-and white if necessary, although color tells the story better.

Multiple windows and the ability to view both graphics (in color) and text on the screen will be quite important. A graphics capability is important not only for presentation, but for the analysis itself. We sometimes need to enter data into a graphics program in order to examine trends. We also need to have a reasonably standard way of sending our drafts to CPAS electronically. In our mid- and long-term work we would like to be able to include at least rough graphics with the texts to CPAS for processing. CPAS could refine the graphics if necessary and work out with us improvements in the layout.

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We should be able to take advantage of commercially available software for specialized needs. This would simplify the process of extrapolating from the raw data and working up estimates of economic performance. A PC-based system would give us greater flexibility. In fact, NESA should invest in some PCs right now. We could do a lot with commercially available software.

Presentation and Dissemination

Maps are an inseparable part of military analysis, and other graphics are also important. We should be able to generate at least rough maps on our terminals and print them out, especially when time is a factor. In situations like the Iran-Iraq war, we tend to use the same base map repeatedly in the daily publications. If there were a quick and easy way to update these we would save valuable time. A computerized file of NID base maps would meet most of our requirements.

Electronic dissemination of memos might help solve the problem of getting intelligence to policymakers who must now go to special secure areas to read our products. There is overwhelming evidence that these people simply do without. Recognizing that the security problems are still formidable, the possibility warrants study because these problems should be easier to solve than with hard-copy dissemination.

Why not a capability for on-line updating of dissemination lists? Regional offices are usually in a better position to know about personnel changes downtown than are the CPAS registry people. Ad hoc changes in the standard dissem list could be made more easily when we want to send an item to a selected audience.

Crisis Support

Properly functioning ADP systems, including SAFE, would be a boon to those involved in task-force work, enabling them to:

- -- Reduce duplication of incoming material.
- -- Rapidly change reading profiles.
- -- File incoming infomation in ways that allow text searches.

 (A task force relying on paper quickly finds it has unmanagable stacks of it scattered across desks and filling inboxes to overflowing. Nobody has time to file.)

Several hardware and software improvements come to mind, particularly in the context of task-force work. Some are probably fairly simple in terms of programming, but they need to be established and tested in advance. Those involving procedures not followed in our normal work must be easily used and well-documented so they can be put in operation instantly.

To facilitate the preparation of situation reports, several of which are usually produced each day, analysts should be able write up developments and comment on them as the information comes in. These topical segments could be stored in a file until shortly before the sitrep deadline. The task force shift chief could review, rearrange, and edit the file, which would then be formatted as a sitrep and printed (or sent electronically to CPAS for dissemination).

- -- There should be a way of arranging incoming information according to the date and time of the event discussed, rather than the date-time group of the message. This would be particularly useful to military analysts trying to make sense of the mass of fragmentary information they receive. At present, this kind of analysis cannot be done until days after the event--if then.
- -- We need a quick way of compiling chronologies and assembling extracts of all the evidence we have on a given subject. We are often asked for such compilations, and find it very difficult to respond with our present methods.
- -- A task force "outbox" in which all task-force production would be retained throughout the crisis and be available for text search.

NESA is working on programs that will help accomplish some of the above, but satisfactory solutions would require:

- -- Terminals with multiple windows so that the analyst could have sources displayed while drafting, and be able to screen relevant incoming mail at the same time.
- -- An ability to extract portions of cables, which could then be edited, filed chronologically, or incorporated in texts.
- -- Fast, reliable printers with redundancy. A task force cannot afford to have its printer go down.

If the technology is available, a large, multiple-window terminal on which several consecutive pages of text could be displayed would be a big help in compiling sitreps.



16 April 1984

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MEMORANDUM F	OR THE RECORD
FROM:	
	Capabilities and Needs of National elligence Council
l. Wha	t follows reflects the results of discussions with in the Analytic Group.

Current Situation

- 2. Most NIC/NIO secretaries have Wang machines, and some of the NIO's have them in their offices. The shops of the NIO/SP, NIO/GPF and the AG, on the other hand, are outfitted with NBI's, but not enough of these are available to allow the professionals in these groups to use word processors regularly. The VM terminals around are too few in number to support the regular use of WP/HB, and access to SAFE is available to few or none of the people. The NIC has no capability to develop graphics or, even, to furnish electronic input to the graphics shop in CPAS.
- A recent suggestion to buy more Wangs and tie them into an Alliance network brought to the surface the strengths and weaknesses of the present arrangement and the range of requirements and perspectives in the NIC. On the one hand, Alliance could free secretaries from considerable re-typing, an electronic mail arrangement could be developed, and major documents could be stored and retrieved at will. Alliance, further, is compatible with the electronic dissemination system run out of the NFIB secretariat so could be made part of a system for transmitting short memos to senior officials around town. But the NIO's for SP and GPF and AG personnel judge Alliance to have serious shortcomings. It provides no access to VM and SAFE and the benefits such access furnishes, and as a word processer it offers no advantages over the NBI's already in place in these shops. It is incompatible with the NBI's the DI and parts of the DoD use to produce draft inputs and with the equipment CPAS uses to transform coordinated text into finished memos. The big estimates, in addition, are too long to be transmitted through the NFIB net, and Wang offers even less promise than NBI and/or

VM of being hookable to a communications network providing electronic transmission of long drafts around town, out of town, and overseas.

What the NIC Really Needs

4. Nothing that the NIC needs appears to be challenging technically, nor are any of its requirements uniquely its own.

Word processing: The capabilities required for NIC analysts would seem to be those required for DI analysts. The system is adopted should be compatible with that of the DI, since the DI is a major source of input drafts. If possible, the NIC system should be able to convert text produced on other major systems into the format used by its own.

<u>SAFE</u> and <u>AIM</u>: Parts of the NIC could make good use of <u>SAFE</u>'s capabilities and of AIM; the NIC's needs relative to search, storage, and retrieval do not appear to have any unique features.

Graphics development—Were I in the NIC, I would want access to a charts—and—maps—development capability, because I believe graphics are as much purveyors of thrust and judgment as displayers of facts. To me, developing graphics is as important—and as hard and full of false starts—as generating text, and the two cannot be conducted independently of one another in time or space. Whether anybody in the NIC shares this view is unknown to me.

Electronic aids for coordination process: Just about everybody agrees on the need for and value of electronic help in managing the reps meetings. The NIC's requirements are not unique, but the payoff with such a system probably is greater for them than for anybody else. Their thoughts run along the lines of a large display screen for showing text, a single keyboard that, hopefully, would be detachable "and could be passed around the table", an on-site printer, and a capability for showing and manipulating graphics. In my opinion, squinting at fuzzy text on a large screen at the other end of the room for several hours will make an already arduous process close to non-survivable and, come to think of it, getting a life expectancy greater than one day for the keyboard might

be beyond the state-of-the-art. That passing around a keyboard can yield product recognizable as being in the English language is an uncertainty that should be subjected to extensive testing before adoption, and these tests should embrace both the presence and the absence of a Delete key.

My druthers are for a system consisting of Grid-type computers at each place at the table, with control of adopted text changes being kept in the hands of the meeting chairman. Each terminal would show the "official" version of the section of text being worked on and would, in addition, have a blank scratch-pad segment on which its user could work up recommended changes. Accepted changes would be keyed in at the chairman's station and then show up on everybody's screen. It probably would be possible to show at least some types of graphics, too, and maybe, even, to make changes to them on the spot.

The requirement for paper-copy duplication in the room should be treated as symbolic rather than hard, lest we wind up with a system in which the Xerox repairman winds up as the country's best-informed citizen. What is really needed is a capability to give the reps paper copies of the newly-negotiated text at the close of each meeting, an easy-do. Another, and probably more useful, easy-do is the capability to electronically transmit the new text to each rep's homebase.

Document search and retrieval: NIO's often are called on to draft memos or brief senior officials on short notice. There is a requirement for on-line electronic storage, keyword search, and retrieval of finished intelligence publications of CIA and other intelligence agencies. The ability to call up charts, maps, and pictures would be helpful, as would a capability to print out this visual material in a quality good enough for inclusion in typewritten memos. The technology required to do this is at hand, I believe.

30 May 1984

MEMORANDUM FOR THE RECORD

SUBJECT: Overview of OCR

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OCR has a broad range of production, reference, database and dissemination responsibilities. Among these are:

subject file indexes, reterence support for its document and library archives, collection and distribution of video material and development and maintenance of automated file systems.

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In its capacity as a service organization, OCR tries to minimize analysts' complaints. While this may seem a somewhat negative mission, it ensures that the Office functions efficiently. OCR would like to improve awareness about the kinds of services it can offer. In this respect, the Office is moving toward greater coordination of reference services.

Office Structure

OCR is comprised of the Information Services Group and the Support Services Group. Prior to 1967 the Information Services Group was actually five different registries. A Ground Photo Registry, Biographic Registry, Special Registry for Codeword Material, Industrial Facilities Registry, and a Document Services Registry. In 1967 it was believed that the Directorate would benefit by combining these five registries and organizing them into five geographic divisions. All substantive functions (military, biographic, economic) are carried out within each regional division. Reference analysts are expected to be able to support each of these disciplines within their region.

The mission of the Support Services Group is to provide a range of technical and reference support for the Directorate. SSG includes the main Library and Map Library, Library Acquisitions, document storage and retrieval functions, as well as computer support.

OCR Files and Indexes

The volume of material that OCR reviews, indexes and disseminates has increased several-fold over the last seven years (see table 1).

TABLE 1 TRENDS IN DOCUMENT VOLUME (in thousands)

-	19	77	1984		
<u>No</u>	o. of Doc.	No. of Pages		No. of Pages	
Paper	260	2,260	300	3,000	
Electrical	130	340	1,300	3,400	
					
Totals	490	2,600	1,600	6,400	

As the table shows, total number of documents has tripled since 1977. The number of electrical cables has increased by an order-of-magnitude and now comprises 80 percent of all documents and about 50 percent of the total volume of information.

Despite a dramatic increase in electrical cables, paper volume has not diminished. It is, in fact, 15 percent greater today than seven years ago. Table 2 shows the relative proportion of documents that arrive in OCR in electrical and in paper form by reporting source.

TABLE 2
PROPORTION OF SOFTCOPY
AND HARDCOPY DOCUMENTS

Source	Hardcopy	Softcopy	
CIA	22%	78%	
	all		25 X 1
	all	all	
	all	all	
DOD	45%	55%	
FBI State Airgram State EXDIS Restricted Data SI TK NSA	all all all nearly all Unknown	nearly all nearly all	

OCR maintains very large files to manage all this information. These are summarized in Table 3 and will be discussed in detail later in the memo.

TABLE 3 OCR FILE SUMMARY

Subject File:

Ten million documents on microfiche from 1950s to date.

ADSTAR:

Six hundred thousand documents in film cartridges from October 1982 to date. Growing at a rate of 400,000 per year, including some 100,000 electrical cables.

Subject Index (in millions):

	Additions/yr	<u>Total</u>	<u>Timeframe</u>
AEGIS offline index	0.320	2.0	68-73
RECON online index	0.320	3.5	74-84
Total documents indexed		5.5	68-84

At present, about 10 percent of the incoming electrical cables and 70 percent of paper documents are indexed each year.



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	RECON a	nd AEGIS						
	The OCR	Subject	Index Fi	le is cor	nmonly kr	nown by	the name	s of
the d	atabase	manageme	nt syster	ns that s	support i	it: RĒC	ON (an o	nline

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system for references less than ten years old) and AEGIS (an offline system for older material through 1968). Together these systems contain references to about 5.5 million documents (see table 3),	
	25 X 1
RECON file is queried 7,000 times per year.	

OCR adds about 320,000 citations per year to its Subject File. A document reference includes a document number, an expanded title line, up to 20 numeric codes (out of a possible 320) that identify subject area and some 10 or more keywords (in free-text form).

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Indexing is done throughout ISG's five divisions by full-time and part-time indexers, including supervisors (who do a limited amount of indexing). Most electrical documents are indexed within 24 hours of arrival in OCR, although a backlog of up to six days can develop. Paper documents take eight to 10 working days. CIA finished intelligence is indexed within two days. As more key documents arrive in electrical form, reference analysts must select those that deserve indexing (such as the annual narcotics report), otherwise these documents might only be retrievable by text search, which is prone to error. This underscores the value of the RECON/AEGIS system--it is an intelligent indexing system that has been built by skilled indexers.

RECON uses two computer programs called OLDE-2 and OLDE-3 for input of index data. Data entry is by means of softcopy menus that are filled out by indexing analysts and transmitted to the RECON The OLDE-2 menu was created in the late 70's as an initial step to assist indexing of hardcopy documents. The improved OLDE-3 system was devised to permit more efficient indexing of electrical The advantage of OLDE-3 is that an electrical document is automatically scanned for date, classification, title and document number. These are extracted and preprinted on the softcopy menu. Using a split-screen technique, the indexer adds keywords plus a set of standard indexing codes. Data on the upper and lower screens are then combined and added to RECON--a more efficient process than the OLDE-2 system. Another advantage of OLDE-3 is that it can use SAFE to greatly speed the indexing Reference analysts can select those cables for indexing and electronically pass these to OLDE-3 for indexing. Problems currently exist in this concept because sometimes documents are lost during transmission. ODP is working on this problem.

Segmented cables have recently become more difficult to index because of changes in procedures by the Office of Communications. Segmented cables are cables transmitted in parts because of communication priorities and protocols. Prior to September 1983,

cable segments were collated by OC before disseminating them through the Cable Dissemination System. OC stopped collating cables because of resource constraints, however, and now OCR finds that it cannot index segmented cables until they have been printed by OC and the segments collated in OCR. This not only takes time, but indexing paper cables with OLDE-2 is less efficient than indexing electrical cables with OLDE-3. OCR has been trying to convert the collated paper cables to electrical form with an optical character reader, but OC's printing device (a customized Xerox 9700, called an Automated Printing and Reproduction System) produces type that is not readable by any known optical character reader.

Support Services Group

SSG's mission includes dissemination of paper and electrical documents and video material. It is also responsible for maintenance of the Rapid Search Machine, the map cataloging system, the RECON/AEGIS index systems, the ADSTAR system and the Compuscan optical character reader.

Dissemination

SSG's Dissemination Branch disseminates paper documents to every Directorate in the Agency and to some 30 non-Agency components—a total of 440 addressees in all. Twelve document analysts identify appropriate components to receive the material and order the number copies to be reproduced by OL/P&PD.

The goal of the Dissemination Branch is to distribute paper documents to consumers within a week; the reality is two to four weeks. There are several reasons for delay:

- o The branch has no control over the flow of documents. If P&PD works overtime or on weekends, a large number of documents can arrive at the same time as material from DIA.
- O External agencies frequently send an insufficient number of copies. Reproduction takes time. Moreover, many reports have enclosures which must be reproduced. This has taken up to two months.

O Logging and receipting controlled documents takes a substantial amount of time of the branch's information control clerks.

o Sheer volume. The branch handles 23 to 27 thousand documents per month, with an average of ten copies per document. This includes about 2,000 documents that are periodicals addressed with pre-printed labels. It excludes CIA's finished publications, which are distributed to the Agency by CPAS. (OCR disseminates JPRS reports with automated assistance, but FBIS will pick up this responsibility in the near future).

7 SECRET

Approved For Release 2009/08/14: CIA-RDP86M00886R000700180021-6

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In the long term, the branch would like to see all paper documents converted to electronic form. A SAFE-type profile system could then be used to disseminate material. In the near term, something must be done to assist the document analysts; they simply cannot memorize seven volumes of reading requirements. One improvement would be to put reading requirements in a database on VM where they could be used to generate an area/keyword list for dissemination. Document analysts could use this list to improve their own knowledge of customer requirements.

Steps could also be taken to improve customer feedback. The branch needs to know what customers do not want or what they did not get. Document analysts must become familiar with the mission and function of branches in the Directorate. AIM could be very useful for this type of feedback, but its utility is limited by the number of Delta Data terminals in the branch--just three.

Library Services

The Library Services Division contains the Library Branch, the Acquisitions Branch and the Graphics Services Branch. Within the Library Branch are the Selection and Cataloging Section, the Loan Services Section and the Information Services Section.

Requirements exist for an Integrated Library System which would provide support for both cataloging and circulation of books in the Library. The integrated library system, developed by the Listerhill Medical Library in 1980, appears to be a satisfactory solution to these requirements. Through ILS, analysts will be able to go the the library and query the catalog for books of interest. It will also be possible to generate a bibliography of books on a particular subject. Because titles of most of the 120,000 books in the Library have been stored on magnetic tape, loading this information into the ILS system should be a relatively straightforward process. ILS goes by the company name of LS-2000 and runs on Data General computers. OCR intends to evaluate this system in the near future. There are no plans to link such a system to VM, however.

Library Databases

OCR recently sponsored a trip to Europe to investigate the availability of scientific and technical databases that could be accessed by the Library. The major network for databases in Europe is Euronet Diane, established by the Commission of European Communities in 1980. It stores about 16 million items of information on 450 different databases which can be accessed from 47 different host computers. CEC is sponsoring the network because it recognizes that Western Europe is behind the United States in database development and that European postal telecommunications systems (PTTs) cannot support the communication requirements necessary for a data-sharing network. In 1985, Euronet Diane will cease operations and transfer its networks to individual country PTTs.

The substantive utility of the databases on Euronet Diane is not much different from those obtained from US database networks, such as DIALOG and NEXIS. Some of Euronet Diane's databases are found on DIALOG. There are many databases on Euronet Diane which are unique, however. These are databases that cover country-specific legislation, politics or economic developments. In addition, there is a database on nuclear technology in French which might be of interest. The French Press Agency also put its wire service (AFP-AGORA) on Euronet Diane which provide excellent coverage of Third World issues.

It is possible that some of the databases that run on individual hosts within Euronet Diane could be accessed from the Library. To route these databases directly to analyst terminals would be difficult because analysts would need to know too many things about too many databases to be able to use them efficiently. Analysts do not want to sit at a machine and ponder the query language. They are simply after information. It is the job of the OCR reference analyst to know the techniques for obtaining that information.

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Replacement of the RSM

SSG's Document Library Branch operates a Rapid Search Machine (RSM) built by GE for scanning free text. The system is used to scan a library of some 900 tapes that covers five years of information on DCI Congressional testimony and Public Affairs

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information is also available. Usage of the RSM runs at 500 requestors per month. In November 1983, for example, there were 150 subject search requests and 300 searches by document number. This is the only Agency computer system that can search and retrieve documents over a five-year period (compared to 90-day SAFE coverage

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<u>Pictorial Services</u>

The function of the Pictorial Services Branch encompasses all activities associated with procurement, review, indexing, retrieval and distribution of pictorial information obtained from broadcasts of film and video

In addition, the branch procures complete productions for analyst

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training or information, such as "how to improve your golf swing" or educational material from Public Broadcasting. It obtains current news reporting from all the networks and it records every evening news broadcast and current events news program received in the Washington, D.C. area.	25X1
The video news broadcasts recorded by OCR are transcribed by a media service called Media-Scan. This service provides transcriptions on hardcopy and on magnetic tape of evening broadcasts The material is available on COLTS but not available on SAFE because the format of the material is difficult to read.	25X1 25X1
The Graphics Services Branch is not involved in obtaining video broadcasts from which is the responsibility of FBIS. The Branch is responsible for the dissemination of this material, however. FBIS publishes video selection lists of material collected which Graphic Services makes available on COLTS. This material is not available on SAFE, however.	25X1
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Compuscan

OCR is testing the Compuscan optical character reader as a production system for assisting the indexing of hardcopy documents. It hopes to convert some 7,000 hardcopy documents per year into electrical format using the device in order to take advantage of RECON'S OLDE-3 electronic indexing system. If OCR is able to successfully convert a number of hardcopy documents, this would also be of benefit to SAFE. The electrical version of the hardcopy document could be transferred to SAFE for analyst text search and review.

The Compuscan has a number of problems. The transmission link between the Compuscan and the Wang word processor has failed a number of times. In addition, the speed of the Compuscan is rather slow--some 20 to 40 seconds per page. Finally, it is not able to read proportionally spaced material text, right justified text, or different fonts on the same line.

Scanning problems could be reduced through administrative changes. For example, the DO issues hardcopy reports on forms preprinted in proportional font. If the forms were changed to

Courier 10-font or if forms were generated by some other means, these reports could be read by an optical character reader. DIA has been issuing IR's using Xerox reduction techniques which make these reports unreadable by an optical character reader. If the IR's were issued in standard size type, this problem might also be solved.

ADSTAR

ADSTAR was conceived in 1976 as a way to provide rapid inbranch access to OCR's paper document files. At that time, nonelectrical documents were stored on microfiche in OCR. To obtain a document, analysts first reviewed a list of document titles from a RECON query and then ordered the desired documents from the list. Delivery of paper documents normally required five business days. While ADSTAR was to reduce this delivery time to minutes, it currently provides slower service than the original microfiche system.

ADSTAR uses a film cartridge carousel. called a SAR (for storage and retrieval)

Document images are stored in film cartridges (4,000 images to a cartridge) and are accessed via a SAR (300 cartridges per SAR). The entire system is capable of storing up to 24 million images or some 2.4 million documents.

Retrieval is accomplished by a special workstation, which includes a terminal to order documents from the carousel system. A document image is scanned within the SAR and the digital image transmitted to the workstation, where a xerox-like device recreates a paper copy of the document image. There are currently 16 stations—one in each division of ISG, ten in the Document Library Branch and one for library intervention. Image resolution of the system is 203 lines per inch.

System specifications called for viewing the first page of a document within 30 seconds and subsequent pages in 1 to 2 seconds. The entire system was to be capable of servicing about 1,200 pages per hour. During tests with 10 workstations in operation, the system achieved 2,000 pages per hour.

Real world demands varied from these tests, however. About 20 percent of documents in OCR's Subject File are required 80 percent of the time. This demand has created contention problems for film cartridges which the present software cannot resolve efficiently. As a result the system can deliver only about 500 pages per hour maximum. This would impose delays in retrieval which would be unacceptable if the system were installed throughout the DI. ADSTAR is therefore restricted to OCR use only. Additional delays can occur from library intervention, which is required whenever a requested document lacks a security code.

ODP was the COTR for the project. The RFP for ADSTAR was released in May 1977.

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Because of its performance on the system and ODP is continuing to work the problem.	25X e
Document input to the system is proceeding smoothly. At present some 600,000 documents dating from October 1982 onwards stored in ADSTAR. (Documents from 1981 through 1982 are now be filmed for input). Documents are being added at the rate of 400,000 per year, which probably includes some 100,000 electric cables. Documents are stored in duplicate in separate SARs to reduce retrieval contention problems. This procedure could red system storage capacity by half, however.	ing al
Future Requirements for SSG	
databases. Among them are a centralized list of all overseas publications, an index to all open-source material and an expansion of TV broadcasts, including foreign TV from satellit	ded es. 25

The summary of the Office of East Asian Analysis is combined with the Office of European Analysis.

4 May 1984

MEMORANDUM FOR THE RECORD

SUBJECT: Results of Interviews with OGI

- 1. intelligence assistants, analysts and managers participated in interviews. They represented all OGI Divisions and all but 3 branches. Their personal experience with ADP equipment and methodologies ranged from sophisticated to nil. If I found one central theme it was that OGI people have had enough exposure to ADP potential to want access to it as soon as possible.
- 2. Collection and Tasking. OGI analysts generally use a broad spectrum of sources and share the common problem of drawing information on functional issues from a regionally based reporting structure. Most participants express frustration with the existing collection tasking system. They find it cumbersome and unresponsive. They write and review standing requirements but rely on ad hoc requirements and personal relationships to get the reporting they want.
- Exploitation and Processing. Because most OGI participants were utilizing multiple sources and large volumes of data, exploitation and processing of information were key problems. One branch has already developed a system incorporating artificial intelligence to assist in data exploitation and processing data from multiple sources. Another branch has applied artificial intelligence on a much more modest scale. A central theme of the interviews was the participants' recognition that ADP technologies and applications were available to address their specific tasks. In particular, those branches without access to SAFE, wanted access as soon as possible. Few participants had thought about the potential for accessing outside databases on line but expressed interest in developing that capability. consistently made the point that while they may not need immediate access to a database to fulfill current intelligence or other time-sensitive needs, the existing barriers to using databases located outside their office meant that these sources of information are not used as

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effectively as they should be. I believe this is an important point. We should not judge the need for on line access to any data base by the need for timely access to meet current intelligence needs. Rather, we should consider the value of the data itself to our mission and recognize that the more barriers the less likely analysts will be to use the information.

- 4. Analysis. While most OGI participants wanted to use ADP technologies, fewer had thought about the analytical potential of these powerful tools or about new approaches to analysis. One branch is using the NOMAD2 software package for analytical purposes with good results. Another has developed sophisticated modeling techniques relating to energy production. These efforts were the exceptions rather than the rule. In my judgment, considerable thought will have to be given to introduction of new analytical techniques and methodologies or we will risk underutilization of ADP potential. At the same time, we have seen examples of the entrepreneurial spirit at work and we should be sure to foster and reward it.
- 5. Drafting and Review. As with SAFE, participants had heard enough about the value of word processing and the ability to move drafts around electronically to want access as soon as possible. Most participants expressed the need to incorporate graphics and some to incorporate imagery into their drafts at their terminals. In all of the interviews, only one person indicated a preference to stay with a paper and pencil hoping to retire before word processing caught up with him.
- 6. Presentation, Publication and Dissemination. Few participants had thought much about the presentation, publication or dissemination aspects of ADP technology. My judgment is that those branches responsible for current intelligence and other time sensitive support--conferences, negotiations, VIP travel--would utilize effectively the ability to transmit products to consumers quickly and to interact with Agency officers at the site of events outside the Washington area.

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24 May 1984

MEMORANDUM FOR THE RECORD

SUBJECT: OIA Views on DI Modernization Needs

1. During the week of 16 April 1984, I interviewed analysts	25 X 1
and support persons in the Office of Imagery Analysis, including	25X1
analysts from each of the five OIA line divisions and Executive Staff personnel. Plans are to increase OIA staffing	
in FY89. The OTA organization will remain	25X1
approximately as it is today with adjustments perhaps being	
necessitated by the 24-hour imaging capability and augmented current	
support responsibilities after the move to Headquarters. Oldis	
major functions are to:	

- O Produce in-depth military, scientific, and industrial intelligence reports.

 as part of CIA and Intelligence Community research and production programs.
- O Provide military intelligence to the DDI in support of arms control negotiations.
- o Provide quick-response intelligence support to CIA crisis task forces.
- o Produce intelligence for and assist in the planning of CIA clandestine collection and operational programs.
- o Develop new research techniques and methodologies to answer critical intelligence issues and to improve the use of imagery analysis resources throughout the Intelligence Community.

The interviews began with a kickoff meeting on Monday, 16 April, in which the objectives of the interviews were explained. Two general impressions gained from this initial meeting were:

- O OIA personnel feel that the DI needs ADP modernization because we have ADP shortfalls, and
- O After the move to Headquarters, OIA may be drawn heavily into current support functions, to the detriment of its primary mission of in-depth military, scientific, and economic/industrial intelligence.

Collection Management

2. In general, the OIA line divisions feel that the requirements systems are not as timely or responsive as needed.

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Concern was expressed that the requirements systems are run by engineers and staffers, not intelligence officers, and that their primary focus is on "bean counting" rather than intelligence value. A requirements database must be available at each analyst's terminal, along with the capability to submit requirements electronically, since OIA is becoming and will have to become even more active in tasking. Feedback on the status of requirements should be provided routinely to analysts. The DI's Imagery Tasking Center was criticized for not being as helpful as possible to analysts in defining imagery requirements and marketing them in the Community. For example, "The ITC works for COMIREX, not the CIA," and the ITC "tail is wagging the dog." Some OIA analysts attempt to obtain satisfaction of imagery requirements by getting other community elements, since they seem to have greater success in obtaining satisfaction. The comment was made that a single CAMS terminal in an office was "ludicrous",
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one analyst, the imagery requirements system will not improve
significantly until there are "fundamental changes" in COMIREX 25X1 operations, which probably isn't likely.
operations, which probably isn't likely. 25X1
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FBIS was criticized as being "almost as bad as CRES" in handling requirements. In the future, DI analysts have to become more involved in the requirements systems; rotational tours by senior analysts on requirements staffs, such as CRES, are useful.
<u>Databases</u>
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3. OIA uses a number of major databases regularly, such as SAFE, CAMS, VM and AIM. OIA analysts have 25X1 developed a number of specialized databases on VM such as NARCPRO
and GUNPRO/COLLAT. A major problem in OIA database use is lack of terminals to access databases such as CAMS. COINS.
government databases, and lack of access to certain commercial databases such as Lloyds and DIALOG. Lack of terminal availability,
as well as lack of adequate knowledge of existing databases and database technology, adequate ADP resources to design and implement databases, and analyst's time to focus on database needs and
possibilities, inhibit database development and use. Advanced
terminals will be required to capitalize on specialized databases.
such as softcopy conventional and multi-spectral imagery, spatial and temporal display of force deployment, 3-D graphics, contour
plotting of maps, etc. Databases access timeliness varies from
near-immediate for current support work to several weeks for long-
term research projects. A good guide to databases is needed, as well as stand-alone systems for compartmented data

Effects of New Technology and Enhanced Collection

4. The new/enhanced collection systems will demand more sophisticated processing capabilities, including graphics; better

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databases; better fusion of different sources of data along with more selective acquisition of information and better planning of overhead collection resource use. Concern was expressed that the increase in available information will overwhelm analysts and result in less time for analysis. If automation and augmented personnel resource are made available, however, technology advances will be a positive influence and result in improved, more timely intelligence. More intelligence assistants and editors will be needed, along with the capability to disseminate intelligence electronically. The pace of automation is too slow in the DI, and its value not sufficiently appreciated by management. PCs would be valuable assets for analysts.

Word Processors

6. Complete word processing capability needs to be available to each analyst. WPs should all be linked and compatible with other terminals. On-screen edit, graphics capability, and electronic transmittal to publications are required. More printers also are needed.

Methodological Support

7. Analytic and methodological support needs to be improved, for example: improved methodologies to expand imagery applications beyond equipment counts to force capabilities, trends, dynamics; trained personnel to help apply statistical and informational tools; computer graphics and light table mensuration capability; automated sampling algorithms for imagery collection targetting; PCs with local storage; sophisticated process models with short run times; better training in ADP use and statistics, among others.

Presentation and Dissemination

8. Intelligence reports, including maps and grahics, should be composed and forwarded to publications electronically. The editorial review process is a problem. Electrical dissemination of products also should be utilized, perhaps with links to key policymakers. DI representatives in consumer organizations would help bypass the bureaucracy and get intelligence to those who need it.

Management and Support

9. The most pressing needs for OIA are: 1) improved training to better utilize ADP and analytic methodologies; 2) more intelligence assistants and editors, 3) complete word processing capability, 4) an advanced terminal on every desk, and 5) better access to databases. The biggest problem with ADP in the DI is lack of centralized management. Analyst's time should not be diluted in support work, such as input to management systems that do not help the production process.

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8 May 1984

MEMORANDUM FOR THE RECORD

SUBJECT:

Office of Scientific and Weapons Research

Overview of DI Modernization

1. Between 12 April and 27 April members of OSWR were interviewed either singly or in groups to determine their views on and requirements for modernization of Directorate ADP capabilities. These people were not chosen at random, however. Individuals were selected who had some experience using the currently available ADP systems based on the feeling that these people could best define requirements for the future -- requirements which go beyond our current plans, particularly, current plans for SAFE. One division, the Advanced Vehicle Analysis Division, was not included in these interviews since it was felt that their particular computer problems are reasonably well in hand with TADS. In any event, they are far more "modernized" than the rest of the office and, therefore, the requirements of the remainder of the office are most in need of identification.

The response in these interviews was enthusiastic. Interviewees seemed anxious to discuss the problems and to offer suggestions for change. They readily agreed that we have problems in our efficient use of ADP systems and that solutions are urgently required. There was a very strong feeling that the Directorate is: (1) behind technologically and not now tracking with advances in technology available, for example, in the personal computer market; (2) not making the technology it has in hand sufficiently wide-spread in the office -- there are a large number of people who still do not have access to terminals or to SAFE; and (3) that the training level in the office is far short of that required to make the best use of these systems even for those people who have terminal or SAFE access. There was a considerable unhappiness with the way things exist today and concern that if we cannot fix the problems that exist today by making today's technology available today, we should not even be considering long-term plans. Moreover, there was feeling that until people have readily available to them, and have experience using on analytical problems, the current ADP systems, they cannot be expected to develop long-term requirements. Nearly all the interviews tended to concentrate more on what is wrong with the current system, or to suggest near term solutions to current problems, than to offer long-term requirements -particularly requirements addressing the vastly increased amounts of information from an increased variety of collection sources.

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General:

- 3. A number of comments of a general nature were made. Among the more important are:
 - a. Future ADP systems adopted by the Directorate must maintain maximum flexibility so that advancing technology can be incorporated quickly as it becomes available, and so that a variety of tools can be provided to the analysts. This means having access to the large files, databases, storage capacity, and processing power available on a central computer while at the same time having available at the terminal the local storage, local word processing, and commercially available software such as spread sheets, management information systems, etc., available on personal computers.
 - b. There was a concern for continuing changes being made in our current computer support operations. The complaint is that the computer people are making continual upgrades or changes which impact on the analyst's use of the system, but which the analyst, for various reasons, simply cannot keep up with.
 - c. The whole process of ADP planning, utilization and training needs to be more formalized. In particular, each division should designate an ADP coordinator. This coordinator position should be formalized with a specific job description and specific set of performance requirements. Training should be given to people occupying the positions and these people should be freed, as required, from normal duties to perform the coordinator tasks.

Collection Management:

4. There is a general feeling that collection management problems are not technology problems or ADP problems, but rather are bureaucratic problems. Hence, these problems are not likely to be overcome with advanced technology, improved computer systems, or improved communication systems. Moreover, there is a feeling that, while analysts are encouraged to get out and talk with consumers, the system operates in such a way as to discourage as much as possible analysts talking directly to collectors. Additionally, there is the perception that the normal tasking system for collection doesn't really work, that in order to get requirements filled, an analyst must go outside the normal system. While one may argue that these perceptions do not reflect the truth, the perception still exists and as such discourages the analyst from participating in and initiating more effective collection tasking. (This same

observation can be made about a number of other items which follow in this memorandum. A perception exists. While it may be argued that the perception is wrong, the fact that it exists discourages analysts from using the system, whether the system is a word processing system, a communication system, a computerized database system, or any other ADP tool.) There were, however, two particular thoughts from the various interviews which are worth specific mention:

- a. The DDS&T must go beyond hardware development; hardware capability alone is the wrong measurement of productivity. More emphasis must be given to the way the data is processed by the collector before being given to the analyst. This processing must keep in mind the kinds of databases, database management systems, modes of retrieval, and analytical tools that the data will be subjected to. Increased and standardized processing at the collection end is required so that less time is needed for formatting by the analyst.
- b. If we are successful in developing an efficient ADP supported collection management system, we ought to be able to develop a similar system for the customers of finished intelligence so that they can better provide their requirements to the production elements of the community.

Databases:

- 5. OSWR has underway a study by an external contractor of its current database situation. The study covers the kinds of databases which exist in OSWR and also those external databases which OSWR analysts are using. The goal is to identify and describe all the databases currently in use or under development, to assess the database environment and the users perception of database needs, and to formulate a strategy for office database development and use. A final report on this study is due in September, 1984. 134 internal databases were identified of which 103 were in direct access storage devices.
- 6. OSWR analysts use a large number of eternal databases. These range from openly available databases such as those in the DIALOG system; to other government databases such as those from Defense Technical Information Center, NASA, Department of Energy, U.S. Geological Survey, Foreign Technology Division CIRC system. They also have a requirement for accessing databases in the non-intelligence community areas having to do with nuclear weapons, seismic activity, technology, technology transfer and sales of items to foreign countries.

- 7. A number of specific requirements related to databases can be enumerated:
 - a. Analysts want to be able to access the various databases from their terminals. These include not only internal databases such as RECON but other community databases such as those accessible through the COINS network, the FTD CIRC database, and commercial databases such as are available through DIALOG.
 - b. Analysts want to be able to download information obtained from these databases into a single consolidated in-house file which they can then search, manipulate, and analyze once they have the computer power to do so. In order to do all these things, they need to have considerable amounts of user support and customer service.
 - c. JPRS and FBIS material should be stored electronically and be full-text searchable in a database which already exists -- such as RECON -- not a new database.
 - d. Indexing for the RECON system should be improved significantly. Current indexing is very shallow substantively and, more importantly, does not contain location information -- information very useful in intelligence analysis.

Additional information should be readily available to the analyst at his terminal including:

descriptions of important organizations.

geographic coordinates of various parts of the world, databases of Soviet equipment,

demographic data for various countries,

f. The analyst needs better control of his in-box. He needs a method to be able to change the threshold for information flowing into his in box and do this automatically and incrementally. That is, he ought not to have to totally rewrite a profile to make a small adjustment. 25**X**1

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- g. Some external database information should be brought into the building through a central entity. Instead of having, for example, many people access external databases independently, a central operation could run large numbers of standing profiles, like the SAFE profiles, against multiple external databases and put the results directly into an analyst on-line file.
- h. Additional support for database maintenance is required. Data entry often takes analysts away from their more important interpretive tasks and ensures that databases once created will not be adequately maintained.
- i. Additional training is required for analysts in terms of knowing of the availability of databases, what the databases are good for, how to access the databases, and how to make best use of the database information once it is incorporated into their central file.

Analytical Support:

- 8. Analytical support as used here means ADP tools to assist the analyst in actually performing intelligence analysis and evaluation, tools which go "beyond storage and retrieval". No matter how large, well indexed, or well formatted our databases become; regardless of what advanced, high density storage capability we may obtain; and no matter how sophisticated our search strategies or queries are made, the end result is that we are still basically getting information back out of our databases in much the same form as we have put it in. We are not actually doing anything -- analytical, statistical, correlative -- with the information while it is in the computer. With the capability to store and manipulate large quantities of data in computerized databases, we have an opportunity to do many more kinds of analysis to compare and evaluate larger amounts of data than we ever had before. We must begin to develop the computer-based tools to do this.
- 9. Analysts will drive the Directorate into the future if they are given a few good tools to use. Experience in using these analytical tools will promote creativity, and analysts will then demand better tools. For example, a reasonable number of personal computers, e.g., one per branch, available to analysts will make them better aware of what is generally available commercially in word processing, spread sheets and other such software with the result that they will begin to demand these kinds of tools from the Office of Data Processing for use with their large databases. Some primitive tools are available today and some form of analytical tool selector or menu listing of these tools should be available to the analysts, along with some discussion of their applicability. Additionally, these tools which are developed in the future need to be easy to use and the analysts need to be provided training in their use. Better customer service and user support are required if use of these tools is going to be widespread and effective.

Word Processing:

9. Most of the individuals interviewed expressed unhappiness with current word-processing capabilities. This unhappiness stems primarily from the centralized computer through which word processing now must occur. This unhappiness arises from undependability of the system (a feeling that the system is down often when an important paper needs to be produced), long waits involved in obtaining copies of papers that are written (an important two-page memo in a long que behind many multiple page, multiple copy documents), a need to go to other parts of the building (often the Ruffing Center itself) to obtain a copy of a document, poorly written manuals, limited and poor instruction, inadequate or unavailable user support/customer service, and finally, continuing changes in the systems, changes which analysts simply cannot keep up with. There is a perception that all these problems would be solved with the acquistion of stand alone word processors or personal computers with printers.

Communications:

- 10. There is a significant requirement for improved secure communications with organizations outside of the headquarters building and outside of the Washington area. OSWR personnel more than most need to work with other technical intelligence organizations such as FTD, FSTC, MIA, NISC, AFMIC. OSWR personnel also need to maintain communications with Department of Defense, Department of Energy, and NASA research laboratories and organizations, such as Los Alamos, Livermore, Sandia, Naval Research Laboratory, Air Force Weapons Laboratory, Air Force Materials Laboratory, and with U.S. Weapons Test Range personnel. OSWR tends to have more external contracts than other parts of the DI. hence, has requirements for secure communications In its Technology Transfer Assessment Center, for example, communication is required with Department of Commerce, Customs Department and the non-intelligence portions of the Department of State and the Department of Treasury. These communication requirements are at several levels:
 - a. Improved voice telephone communciations -- more reliable, more dependable and, most importantly, more available to people outside the Agency. Secure telephones are generally available in the Headquarters building, but are very limited by number, by line capacity, and not readily accessible to the people in other organizations, particularly outside the Washington area.
 - b. An electronic mail system with other personnel in the intelligence community, in the other departments of government, and with contractors.
 - c. Access to wide area nets such as ARPANET (or MILNET) which would enable analysts to maintain unclassified electronic mail correspondence throughout the country with other U.S. government personnel.

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d. Capability for secure distribution of drafts of papers and other intelligence documents as well as a mechanism for accessing directly classified databases in other organizations.

Customer Relations/Presentational Means:

- 11. This area covers such topics as determining the requirements of customers, providing the customers with finished intelligence, and the various mechanisms for providing this finished intelligence. Several ideas were suggested:
 - a. Develop a new database containing standing intelligence opinions which could be updated periodically by the analyst, and which would be accessible by customers. This database could also contain the latest information comparing state of the art of U.S. and Soviet technologies so that customers could, for example, determine the possible impact of technology transfers.
 - b. Improved mechanisms such large-scale wall displays for NIE coordination, electronic conferencing and presentation to consumers of finished intelligence.
 - c. As stated above, if an automated collection management system is developed, such as system ought to be adapted so that consumers of intelligence can task the intelligence producing agencies.

Management Support:

- 12. The discussions of management support or management information systems ranged from "we don't need any", "we already have too many", to "this is the least important of our problems". The discussions tended to focus on administrative support rather than management support; that is, on how to reduce or improve the flow of paperwork or how to retrieve administrative information rather than on how to provide or evaluate information which will impact on management decisionmaking, resource allocation, priority setting, redirection of effort, etc.
- 13. It is generally agreed that any management information system must be useful to all levels of management. Every level of management, particularly the first-line manager, must benefit from this system. The current perception of systems that we have, e.g., DIPMIS or DIHRMIS, is that these provide no benefit to the first-line manager, the branch chief, who is really responsible for producing finished intelligence and getting it out. In fact, these systems, if anything, are a hindrance; the first-line managers are required to spend time feeding them yet get no management help from them.

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- 14. Management information systems should be designed so that the input to them is almost automatic -- one should not have to input data specifically to the MIS. The system should collect and organize its data from other information that is being input into the system in the normal course of business.
 - 15. Several items are worthy of specific mention:
 - a. Develop some mechanism which can show the impact of changes in tasking, i.e., where interactions with other people will be affected by the changes.
 - b. Maintain a database of the past and current experience and training of people in the Agency, not just what they are now doing -- such as the DIHRMIS system provides. There are many people with high levels of experience and training in topic areas of interest to OSWR in, for example, ORD, OTS, OD&E. These people could provide expert help to analysts in technical analytical problems. Moreover, many managers were, and often still are, experts in areas where they are not now working.
 - c. Additional management tools need to be developed or brought in house so that information contained in administrative or management databases can be used effectively. These tools and their use should be standardized throughout the office so that both the office director and the branch chief can get the information, properly aggregated, needed to make decisions appropriate to his level of responsibility, and get the information from the same system.
 - d. Other kinds of information which should be maintained, and accessible on line, in addition to professional experience, are: training history, publications history, information on applicants in the hiring pipeline, planning tools, contract monitoring, training and travel scheduling.
 - e. All administrative forms should be computerized. No requirements should exist for filling out paper forms. Moreover, the system should retrieve automatically information required for many forms. For example, once a person's name is typed into the "electronic" form, the system should retrieve most other information required, such as employee identification number, date of birth, EOD date, etc.

20 April 1984

MEMORANDUM FOR THE RECORD

SUBJECT:

SOVA Views on DI ADP Future

1. In SOVA, people ranging from senior analysts to the office director were interviewed. The majority reaction to the task force's mission was cynicism coupled with the faint hope that something might be done about what is widely seen as one of our most serious problems. It was felt that our ability to look ahead was sharply limited by preoccupation with our current predicament. The general reaction was that we might be able to focus on tommorrow's technology if we had today's. All respondents emphasized the need for reliable, fast, flexible, and more user-friendly ADP capabilities.

2. Collection Management and Tasking. In general, SOVA does not see this as a problem susceptible to solution by ADP, although aspects of collection tasking can be made more convenient. Automated systems to help maintain and update requirements would be useful administratively. Few, however, have confidence in the ability of the formal collection tasking structure to be more than a marginal influence.

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3. <u>Data Bases</u>. SOVA is an heavy user of data bases of all types. We expect our use to grow as rapidly as resources can be made available. Our major growth contraints are hardware and software availability and inadequate programming support. Our potential use of commercial data bases is limited. We already have access to most of those data bases now needed and see few problems procuring the few left that we need given the availability of funding. Access to other governmental data bases

would be desirable but was not seen to be a pressing need.

- 4. Word Processing. SOVA is an enthusiastic user of word processors and is eager to expand our use. AIM based word processing (including the HBWP and the various renditions of SCRIPT) are highly regarded by its users. In general, we prefer function key processors like the NBI but wish to retain the flexibility of VM based systems. We would prefer that word processors be available on each analyst's SAFE terminal but have the capability to work off-line to reduce the potential load on the common user system. We will need computer resident instructional programs for such things as touch typing which we believe would significantly improve our efficiency.
- 5. New Technology. Most felt there was little point in concerning ourselves about future technologies while we lacked today's. Specific requests however were:

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Rapid Search Machines. SOVA has an urgent need for a powerful interactive text storage, search, and retrieval capability to improve our exploitation of compartmented data. We also see it as a powerful tool to improve the rigor and sophistication of our analysis We are working with ORD to solve this need but will face unprogrammed resource needs in the near future if the technology proves out.	25X1 25X1
Artificial Intelligence. We see many applications especially in the fields of pattern recognition, advanced document sorting, and concept branching theory.	
Laser Storage Media. We hope the space savings to be	
gained from the use of more efficient storage media	
would speed our response time for information from	
historical data collections. At present, our scratch SCAM tapes are dispatched each six months whether	25X1
we need them or not.	
Real-time TV display.	25X1
Real-time TV display. Specifically, the capability to access Soviet and	
European TV programs	25 X 1
would help us improve the speed at which	25 X 1
we could monitor and report on fast-breaking events.	
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6. What Can Be Done Now.

- --Terminals. The DI should expend all possible efforts to provide all analysts full SAFE by mid-1985. All managers and secretaries do not necessarily need SAFE but should have AIM. Better terminals are also needed. There is strong dissatisfaction with the present and projected Delta Datas on the grounds they are obsolete technology without features (horizontal scrolling, multi-processing capabilities, large local memory, off-line capability, and off-screen read cability with mouse light pen, etc.) found in many commercial microcomputers.
- --Programmers. Each office should have an appropriate complement of programmers that know the office's needs and can respond to requirements on the office's terms and within its time need. ODP and ASG, with some exceptions the SURE Staff) are generally considered unresponsive to the line office's needs.
- --Training. We believe more productive use could be made of our present capabilities if there was adequate training. Adequate being defined as sufficient, quality courses conducted within the analyst's branch.
- -- IAs. There are too few IA slots as well as IAs to fully exploit existing opportunites.
- --Production Technology. The two largest obstacles to the rapid production and dissemination of intelligence are Graphics/Cartography and the Printing Plant. Laser Printers--optimum of one per branch; minimum one per division--and office-level advanced graphics and composition technology could both speed-up our own production but would also help reduce the load on a hard-pressed OCPAS. In the interim, OCPAS should be given priority in building itself to support our projected increases in the quantity and sophistication of our publications.
- 7. Management Support. Most managers felt we already spent too much time and energy managing management and not intelligence. There was hostility to DIPMIS and other programs which may have caused some of the unwillingness to consider other tools. OP's efforts to more fully automate the applicant and hiring system and allow offices to query its data base was met with strong approval. The value of AIM as a managerial tool to speed-up our communications and, through the use of pre-formatted forms programmed into SOVA AIM, was recognized by its users. But in general, our managerial problems are not seen as being soluble by ADP solutions.
- 8. <u>Final Thoughts</u>. There was a stong current of thought that the DI's problems are not technological but bureaucratic. There

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was confidence that any problems that arose could be solved given flexibility in procurement authority and sufficient external OS was seen by some as a major obstacle because research funds. of their uniformly negative and rejectionist response to ADP modernization requirements. One example is their refusal to allow DIA analysts access to our computers even though they may be working on problems of common concern under our direct supervision. ODP's planning cycle is seen as having a longer half-life than our requirements. Their idea of user-friendly is too often that it be friendly to them not the average or even above average analyst. A comparison of nearly any ODP users' manual with a commercial counterpart demonstrates this clearly. Customer support rarely sees the line analyst and manager as a customer. Both ODP and ASG are thought to be too far removed from the operational realities of the DI offices and often lacking the exposure to the substance of our work to comprehend our needs. There is a perception that no one seems to want to work on small, cheap projects that would meet our needs but seem, because of bureaucratic imperatives, to concentrate on expensive, systems approaches that only reach fruition after our need has passed or been met by locally created solutions. We would not argue that all these criticisms are necessarily well-founded but would note that the perception is counterproductive to the DI's progress.

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ADP APPLICATIONS CHECKLIST

CHECKLIST OF ADP APPLICATIONS

In interviews with analysts, managers and secretaries, the Task Force encountered many ideas on how ADP could be used to improve the operations of the Directorate. A number of these ideas are incorporated in summary form in recommendations in the report. Others are included here for reference. The Task Force notes that some items are already part of future SAFE requirements while others could be implemented independently of SAFE. The ideas are grouped according to the functional categories outlined in the Task Force report.

Collection Requirements Management

0	Develop a n	methodology	to	use	SAFI	E profiles	for	general
	collection	requirement	s i	for	the (Community.		_

0	Evaluate sources of information by matching Information Reports against SAFE profiles.	

o Develop software to analyze how changes in collection tasking would affect collection in other target areas. Show range of administrative and technical leadtimes necessary to implement changes in collection and how these leadtimes could be modified according to priority of the requirement.

o Develop a SAFE profile system that permits analysts to assess how incremental changes in their profiles would affect the volume of information which they receive. For example, a military analyst should be able to quickly determine how many more cables would be received per week if the profile were expanded to include a new subject area, on say, trade with the USSR.

O A multi-tiered SAFE profile system that permits analysts to accumulate in separate "mailboxes" subjects of high priority for immediate review and subjects of longer-term interest that can be reviewed over several weeks.

 Access from analysts' terminals to an electronic card catalog of library holdings.

O Capability to view and obtain in real time copies of documents stored

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0	Access to governmental databases including the Congressional Record, the Public Affairs Information Service, arms control negotiating records from the Arms Control and Disarmament Agency, information held by the Air Force and the US Geological Survey and other DoD databases.	25 X 1		
0	Capability to retrieve wire service stories using the SAFE profile system.			
0	On-line access to the OCR leadership directory and leadership appearance databases.			
0	Capability to search and review all DO reporting electronically.	25X1		
0	Contractor reports delivered in electronic form for full-text search and display at analysts' terminals.			
Data	Input of Hardcopy Material			
0	Provide an on-call stenographic service to record conferences and meetings. Use existing software to transfer stenographic tapes directly to the VM system for editing, text search and retrieval.			
0	Use a hand-held optical scanning "pen" to select keywords for indexing a document.			
0	Request the Office of Communications to resume its practice of assembling segmented cables prior to disseminating them to SAFE via the Cable Dissemination System. Alternatively, request the Office of Communications to modify the APARS printing system so that hardcopy reports printed by APARS are scannable by optical character readers. This would enable OCR to use a computer program to assist indexing these documents for RECON.			
0	Input JPRS textual material into the SAFE system via optical character readers.			
0	Develop a program to convert all or parts of docuemnt images to encoded text so that they can be searched.	25X1 25X1		
0	Provide all DO reports on-line. Alternatively, publish hardcopy reports in a form that is scannable by optical character readers.	25X1		

Database Development

o Adopt a common query language to access Agency databases. Build interfaces to permit a range of internal (and external) databases to be queried via this common language.

- o Provide an on-line index to available analytic tools, methodologies and databases along with descriptions and examples of each.
- O Write a manual for NOMAD-II that can be understood by novice users.
- O Develop an electronic "note card" system that permits analysts to record notes while reading hardcopy material.

Database Processing Support

O Develop a cross index between the OCR subject file (RECON) so that a query of one system can obtain records in the other system.

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- o Develop a system that orders SAFE cables or other electronic date by the date and time of an event rather than the date the information is acquired. This tool would be particularly useful for quickly compiling event chronologies or for describing events during a crisis.
- o Develop a standard software package that would permit analysts to examine interrelationships among individuals, organizations, and research programs. For example, OGI's Third World Issues Branch uses a NOMAD database to analyze hierarchical relationships

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o Devise a comparative database of US technology and Soviet technology to support assessments of technology advantage.

Video Databases and Support

- o Provide Media-Scan notes of television news programs and the FLICS film index on SAFE.
- O Equip every branch with a television linked to the internal Agency cable network. Use it to:
 - -- Advertise OCR and CPAS services that are available to the analyst.
 - -- Present courses on how to use the computer, inform analysts of reference aids.
 - -- Teach the application of statistical methodologies and how to levy collection requirements.
- O Provide unclassified courses on analytic techniques that analyst and managers can view on VCRs at home.

Crisis and Time-Sensitive Support

- o Store alert lists on-line for quick retrieval. Use automatic dialing systems to contact individuals in a crisis.
- o Provide a capability for analysts to highlight portions of a SAFE cable so that managers can read relevant portions of the highlighted text quickly.
- o Provide the Operations Center with the capability to designate incoming cables for immediate input to SAFE and RECON.
- o Create a task force production file or "outbox" in which all production of the task force could be retained during a crisis for retrieval and text search.
- o Provide a way to quickly compile chronologies that pertain to a crisis. This could include a software package that would search the SAFE text online and offline files for relevant cables, sort them in chronological order and highlight events of particular interest on each cable.
- O Develop an electronic cable delivery service to enable the Operations Center to deliver hot items to the President's Daily Brief Staff.
- o Link Order-of-Battle databases to a graphic package to display unit hierarchies and associated equipment.
- o Design an on-line map library, simple enough for novice users, that would permit maps to be retrieved, displayed, annotated and printed.

Production Support

- o Establish secure voice and electronic mail links with government contractors, National Laboratories, and other intelligence organizations located outside the Washington, D.C. area.
- o Provide analyst access to ARPANET or MILNET so that analysts can maintain unclassified electronic correspondence with other parts of the government as well as with contractors.

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- o Establish combined telephone and television communications links with imagery analysts to enable all-source analysts to view and discuss imagery with imagery analysts.
- O Improve the VM-to-Wang and VM-to-NBI links so that Script files can be transmitted without loss of data.
- o Incorporate the features of EZPUB into Host-Based Word Processing.
- o Devise an editing system that would simulate editorial markings on an electronic draft so that the author would have no difficulty identifying proposed text changes.
- Develop an interface between the Office of Logistics laser plate-maker and the ICAD system in CPAS to simplify the publication process.
- o Design electronic forms for drafting NIDs and PDBs and other regularly produced intelligence production.
- O Develop software to produce a CIA letterhead via the laser printer for finished typescripts and memos.
- Design a standard format for typescript memos using a standard word processing language.
- o Provide a style manual and writer's guide for intelligence publications available at analysts' terminals. Equip the manual with electronic models of forms of proper memos and cover notes.
- O Add the capability to annotate mail received on AIM and to search on the annotations.
- o Use AIM to obtain document registration numbers.
- O Use bar-codes on NIDs and other documents for maintaining logs of controlled documents.
- O Convert branch reading requirements to a VM file where they can be reviewed and updated regularly.
- o Provide the capability to review and update dissemination lists electronically. Use an electronic version to coordinate dissemination with DO and other agencies.
- o Maintain distribution lists for publications on-line so that they can be searched by recipient and by product.
- O Keep the sourced draft of a finished publication in a VM Script file rather than in hardcopy.

Dissemination and Presentation

- o Use MEDUSA for dissemination of DI products.
- O Install display devices near policymakers who must now go to special secure areas to read codeword products.
- o Provide policymakers with direct access to system.

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- O Develop an intelligence requirements system through which our customers can communicate short-term needs to production elements in the Agency.
- O Equip all DI conference rooms with electronic display screens and computer terminals to coordinate drafts stored on VM and to display vu-graphs for a briefing.
- Develop a portable electronic display system that could be taken outside the building for briefing purposes. The system could access classified vu-graphs stored via a local Agency computer. Alternatively, vu-graphs could be stored on video disks or floppy disks and displayed on video systems prepositioned in conference rooms of other agencies.
- o Provide terminals with the option to display large type for briefing purposes and for people with poor vision.
- Establish an electronic maintenance facility to repair DI equipment.

Management Support

- o Develop a scheduling system for managers keyed to and searchable by kinds of activities rather than by date.
- Develop a standard transaction format so that information on personnel, training, resumes and other administrative information can be conveyed to a central database of management information. This would ensure that information currently being input to automated databases could be retrieved centrally through a standard query language.
- o Develop a computerized DI telephone book.
- Develop on-line organizational charts.
- o Provide a package of management planning tools such as production tracking, contract monitoring, training, travel scheduling, document control, etc.
- O Provide standard notification via AIM of changes and upgrades in ODP operations.
- o Provide a terminal display 132 characters wide for charts and tables.

Training

- O Provide self-teaching, computer based training packages for computer systems, methodologies, databases, typing, and word processing.
- O Provide noontime or after hours training in the Headquarters Auditorium.
- o Task contractors to develop VM or AIM computer-based training packages for personal computers.

INTERVIEW QUESTIONS AND WORKING PAPERS

10 April 1984

MEMORANDUM FOR THE RECORD

FROM:

DI Planning and Development Task Force

SUBJECT:

Purpose of Interview

- 1. The Planning and Development Task Force is attempting to define the long-term information processing needs of the Directorate. A long-term modernization plan will require both a substantive evaluation of how ADP technologies can support and enhance future intelligence analysis and a technical study that relates identified analytic needs to specific system concepts and programs. The goal of the Task Force is to complete the substantive study by 1 June and the technical study by 1 November.
- 2. The substantive study will be the more important of the two. It will determine basic analytic requirements and priorities and will ultimately determine the utility and success of any programs that are implemented. Its conclusions will be used to establish requirements for DI display, communications, storage and processing requirements, both for SAFE and for other systems. The substantive study will encompass an examination of current research activity in the Directorate, estimates of future trends in intelligence issues and potential ADP technologies that could provide analytic and staff support. Interview reports will become the conceptual basis for the substantive study and serve to document its conclusions.

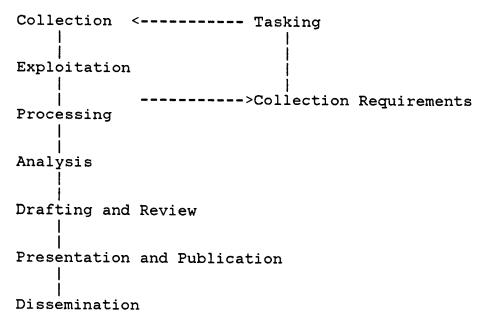
Interview Questions:

- 1. What are the principal sources of information you use in your component--by mission?
- 2. How do you use the current collection requirements system? Do you rely on standing requirements for most collection or do you modify collection requirements frequently? How frequently? What collection requirements management system would be of benefit to the DI and how would it improve the DI's effectiveness?
- 3. What are the principal databases used in your work? Are you thinking of using or developing other databases? What degree of access to external databases or systems (such as commercially available unclassified databases) would be useful? What would you require in terms timeliness or scope? What would be the substantive utility of these databases?
- 4. Does your work require immediate access to databases or can you wait for a few hours or days without substantial impact on your work? What benefits would more timely information have on DI productivity?
- 5. As you look ahead, what ways do you see new technology influencing the DI's capability to cover new issues, improve its analysis or expand the range of its products?
- 6. How will these changes affect the intelligence sources you use in your work?
- 7. To what extent do you use word processors in your work? What changes would you like to see and what benefits do you see from these changes?
- 8. What analytic tools/methodologies/systems would be of benefit to the DI and how would they improve its effectiveness? What are your most pressing ADP needs?
- 9. How could the DI improve the quality, timeliness and effectiveness of the presentation and dissemination of its products--both in terms of ad hoc typescript memos and finished products?
- 10. What management and production support systems would you like to see established and how would they improve the efficiency of the DI?

9 April 1984

MEMORANDUM FOR	R: See Distribution	
FROM:		
SUBJECT:	Problem Definition for	or Task Force

I have outlined here the thoughts from this morning on our approach to interviews and follow-up discussions. The basic approach is predicated on the schematic of the analytic process that is known to all:



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This schematic describes the overall <u>process</u> which the Task Force is trying to examine. Our examination of this process should be considered in four parts:

-- Substantive and functional needs. This covers the definition of the data and range of analytic and presentational support requirements which the Directorate requires to do its work. These requirements would be identified by members of the Task

Force through interviews with key members of the offices and through the experience and ideas of Task Force members.

- -- <u>Constraints</u>. Security and organizational considerations which will circumscribe a modernization effort.
- -- Modernization Program Attributes. The elements of a program that reflect the substantive requirements. To be defined by the task force following the interview segment.
- -- Technical System Requirements. Following the development of Modernization Program Attributes, characteristics of the communications architecture, processing speed, local and central storage requirements would be developed with the support of ODP, OC, OD&E and contractors.

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